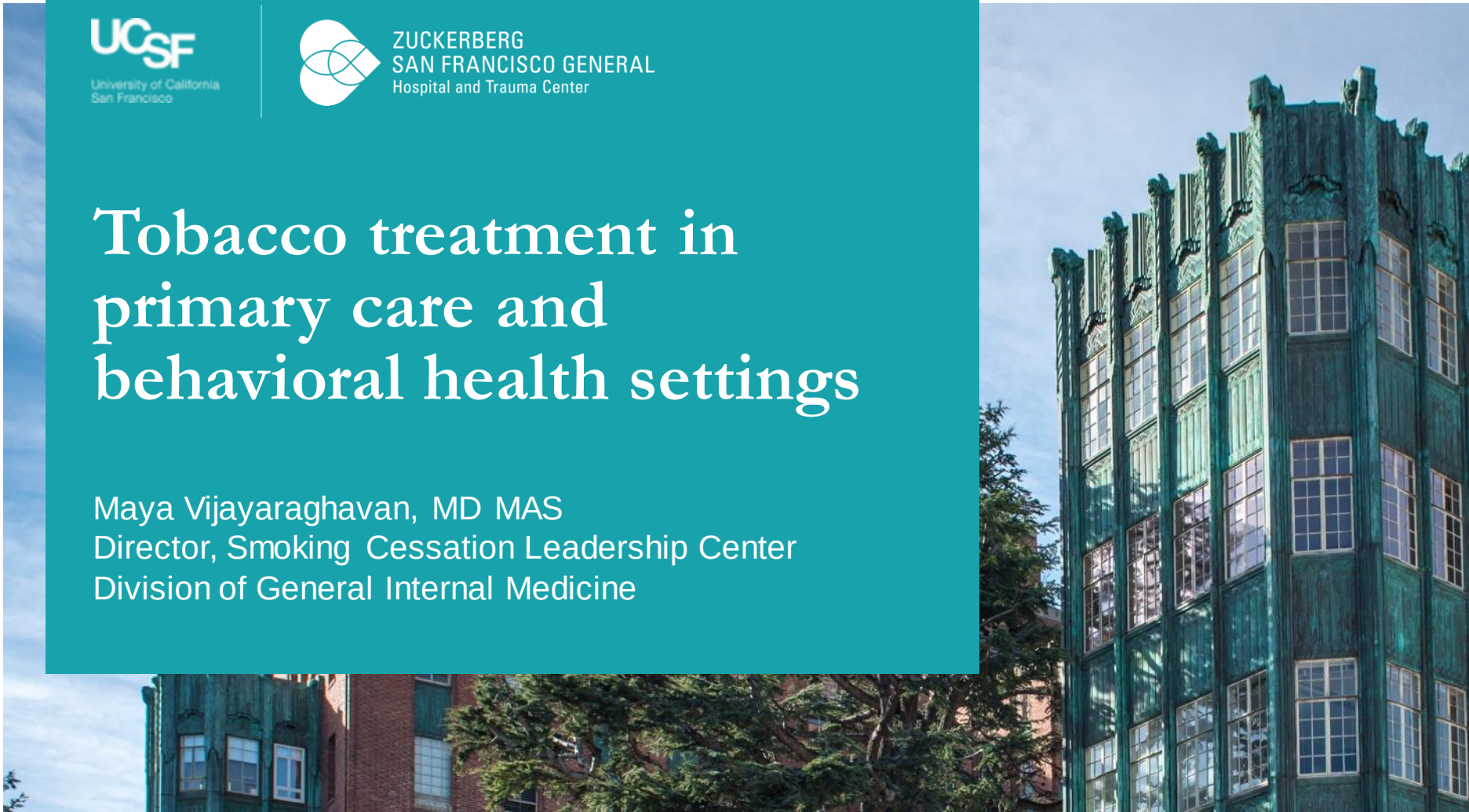

UCSF
University of California San Francisco

ZUCKERBERG SAN FRANCISCO GENERAL
Hospital and Trauma Center

Tobacco treatment in primary care and behavioral health settings

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Disclosures

Speakers:

- Maya Vijayaraghavan, MD, MAS has no financial relationship(s) with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients to disclose.

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- This activity is not commercially supported.

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Upon joining, all participants will be automatically muted. Participants are encouraged to turn their cameras on.

Please change your Zoom name to your first and last name and your organization/agency (e.g., "Jane Doe, LifeLong Medical Care").

This webinar is being recorded. The link to the recording will be shared after the training, along with a PDF of the slides.

Please use the Zoom Chat to ask questions. We will address questions during the Q&A period at the end of the training.

Attendance

Before we start today's presentation, please log into the eeds.com website to get attendance. Even if you don't plan to claim CME credit, we still want you to log in for our attendance. If you are a LifeLong provider, you **MUST** log into eeds AND take the evaluation afterwards to get CME credit. There are two ways to log in:

- Use your smartphone camera to scan the QR code on the screen, then type in the code **[65puts]**
- Navigate to eeds.com and select Sign In, then type in the code **[65puts]**

It is extremely important that all LifeLong attendees log into eeds for attendance and take the evaluation to claim CME credit. If you have any questions or are unable to login today, please reach out to Crystal Ngo at cngo@lifelongmedical.org within 24 hours so she can manually add you in.

Continuing Education (CE) Credit

- This training meets the qualifications for **one (1.0) hour of continuing education credit for LMFT's, LCSW's, LPCC's, LEP's, and SUD Counseling Staff** as required by the California Board of Behavioral Sciences and by the California Consortium of Addiction Programs and Professionals (CCAPP).
- To receive CE credit, **attendees must be present for the entirety of the training and complete the post-test**, which will be provided after the Q&A section.
- Attendees who do not qualify for CE credit are eligible to receive a **course completion certificate**, also conditional on full attendance and completion of the post-test.

Continuing Medical Education (CME) Credit

Accreditation Statement

- LifeLong Medical Care is accredited by the California Medical Association (CMA) to provide continuing medical education for physicians.

Credit Designation

- LifeLong Medical Care designates this live activity for a maximum of 1 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
- LifeLong Medical Care designates this live activity for a maximum of 1 Hour(s) Attendance w/ No Credit. Participants should claim only the credit commensurate with the extent of their participation in the activity.

Please note: Only physicians employed by LifeLong Medical Care qualify for CME credit.

Pre-Training Evaluation

Acknowledgments

- Adapted from the Rx. for change website: http://rxforchange.ucsf.edu

Objectives

- Describe the epidemiology of tobacco use among behavioral health populations
- Discuss methods and resources for smoking cessation counseling
- Discuss pharmacological treatments for smoking cessation
  - Use of pharmacotherapy among persons with mental illness
  - E-cigarettes for smoking cessation

Tobacco use in the United States

- 28.5 million (11%) people in the US use a tobacco product
  - 12.5% use cigarettes
  - 3.7% use e-cigarettes
  - 3.5% use cigars
  - By sex: 24.5% of men and 13.9% of women
  - By race/ethnicity: 39.4% AI/AN; 21.1% White, 19.4% Black, 11.7% Hispanic/Latinx, and 11.5% Asian

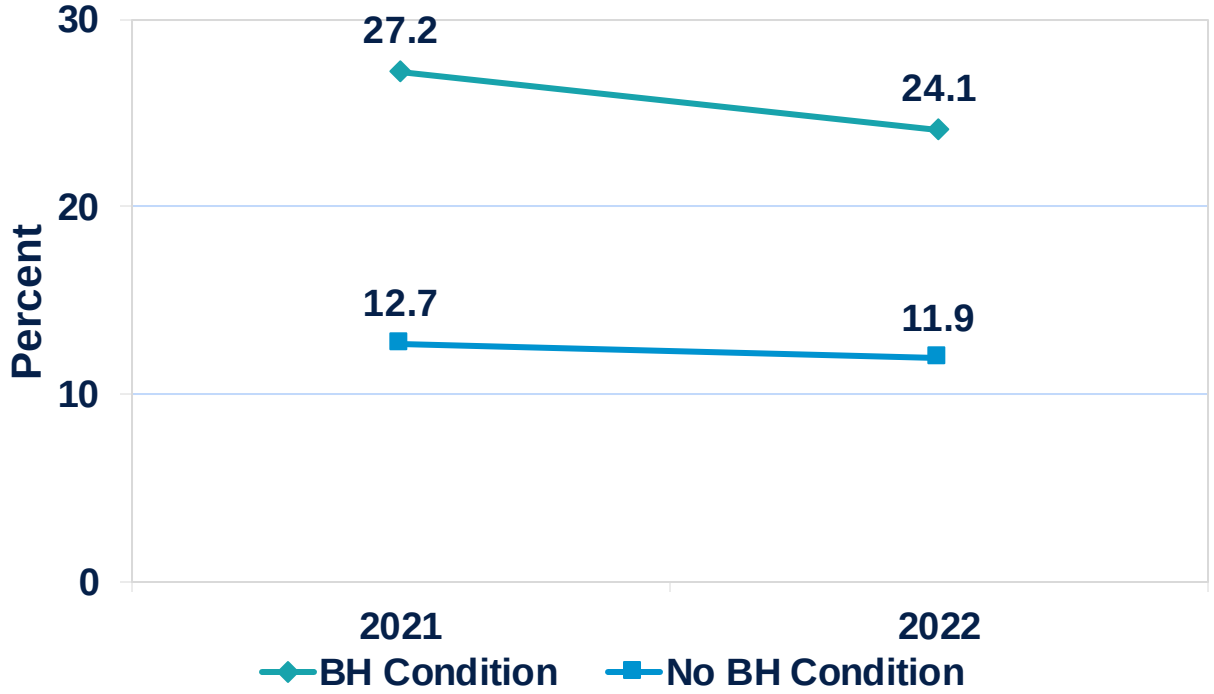
Office on Smoking and Health, National Center for Chronic Disease Prevention

Smoking is still the leading cause of death

- 540,000 deaths annually, 200,000 among behavioral health populations
- > 7 million deaths world-wide each year
- Current trends show >8 million deaths annually by 2030
- 41,000 deaths in the U.S. due to second-hand smoke exposure
- >16 million in U.S. with smoking related diseases
- Low-income populations bear a disproportionate burden

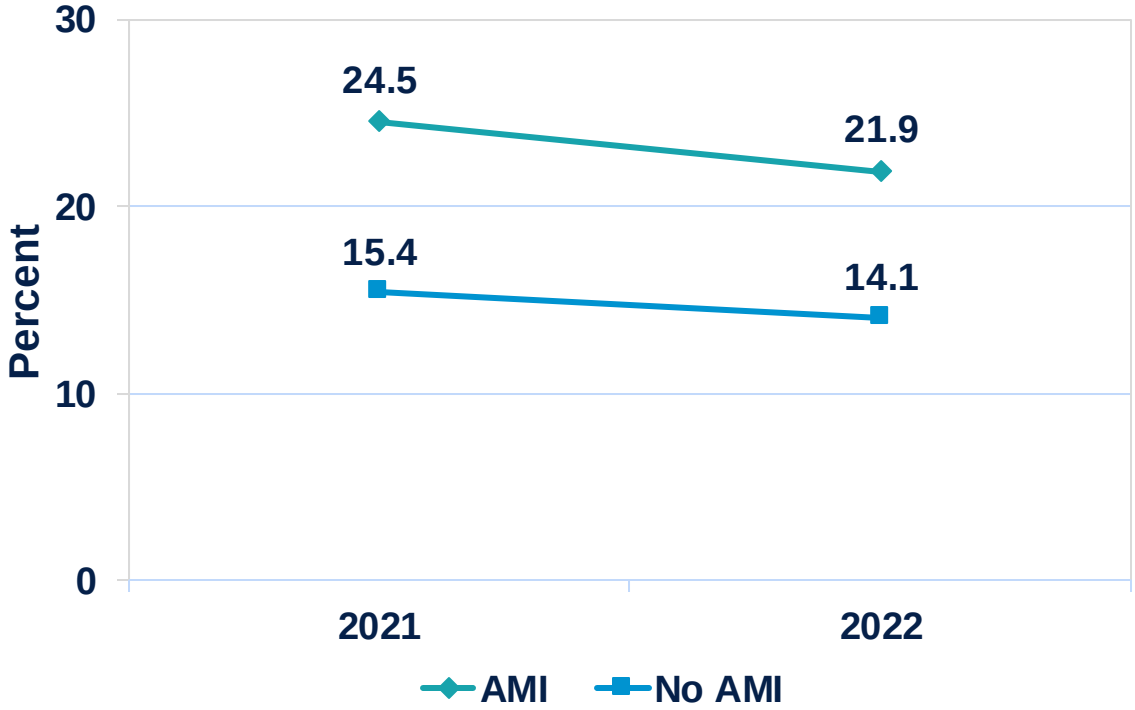
Selby et al., 2022

Current smoking among adults with a past-year behavioral health condition



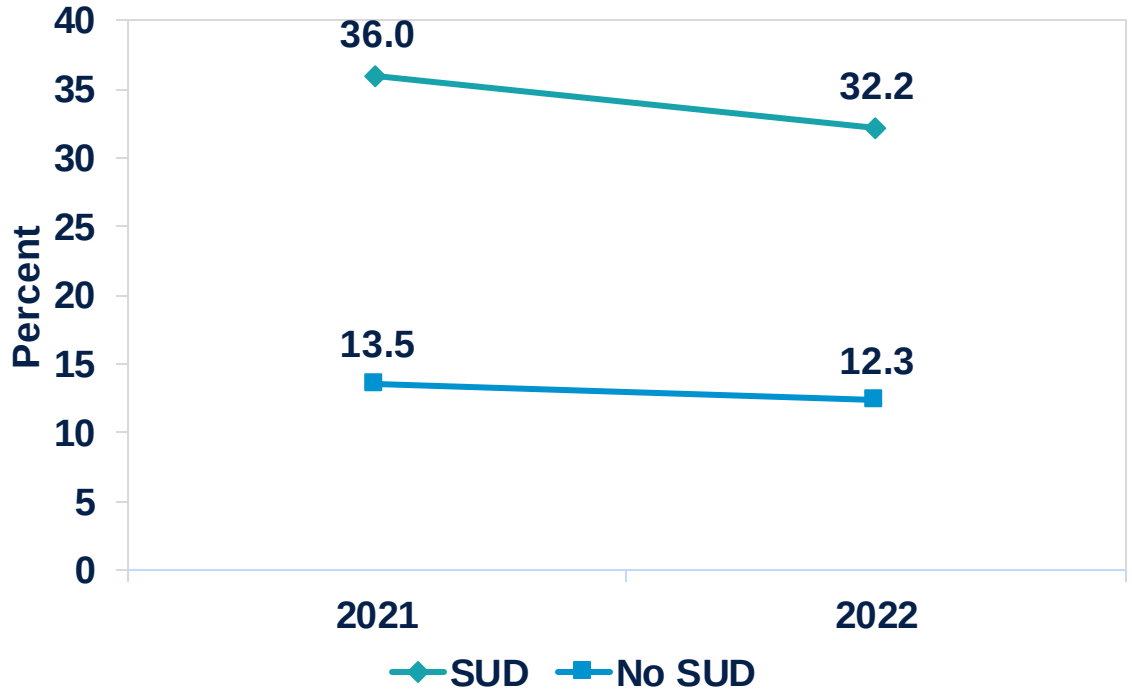
NSDUH, 2021-2022, Slide courtesy of Doug Tipperman, SAMHSA

Current smoking among adults with a past-year any mental illness



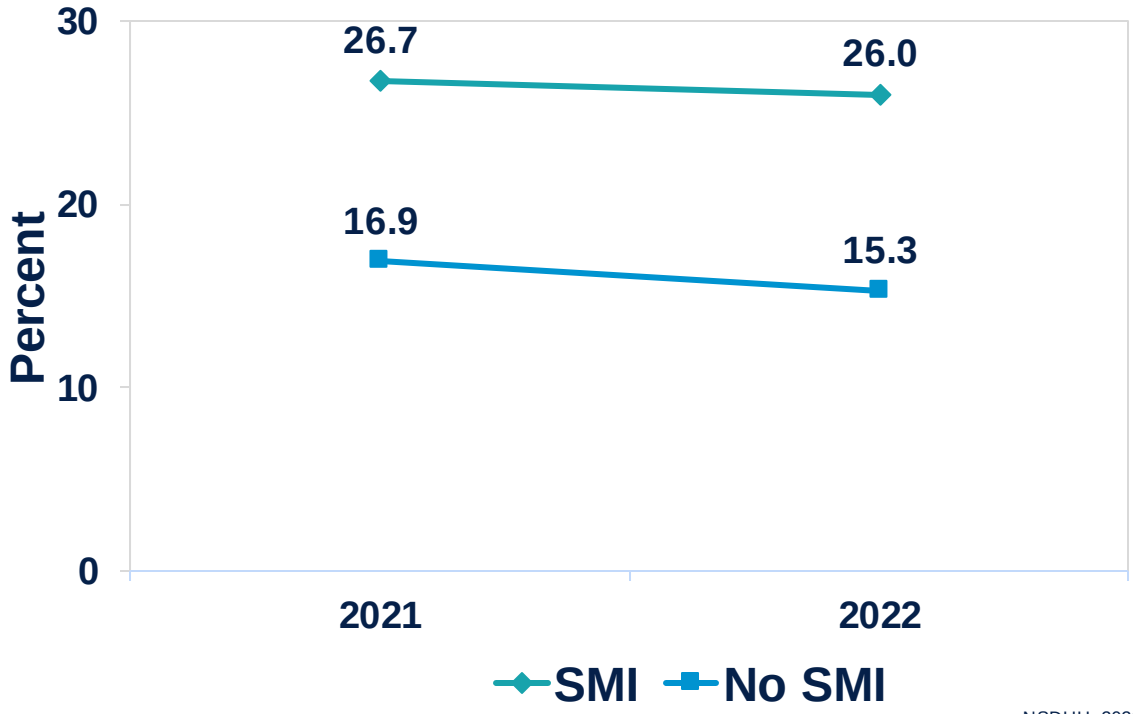
NSDUH, 2021-2022, Slide courtesy of Doug Tipperman, SAMHSA

Current smoking among adults with a past-year substance use disorder



NSDUH, 2021-2022, Slide courtesy of Doug Tipperman, SAMHSA

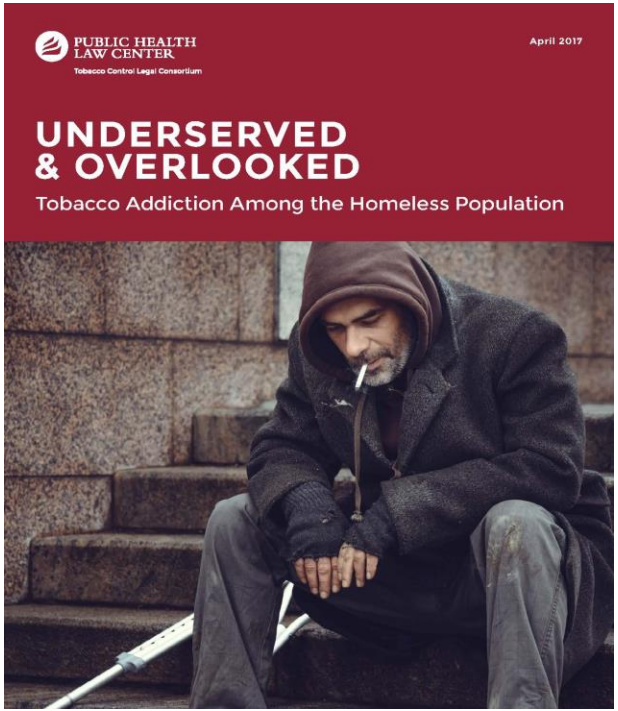
Current smoking among adults with a past-year serious mental illness



NSDUH, 2021-2022, Slide courtesy of Doug Tipperman, SAMHSA

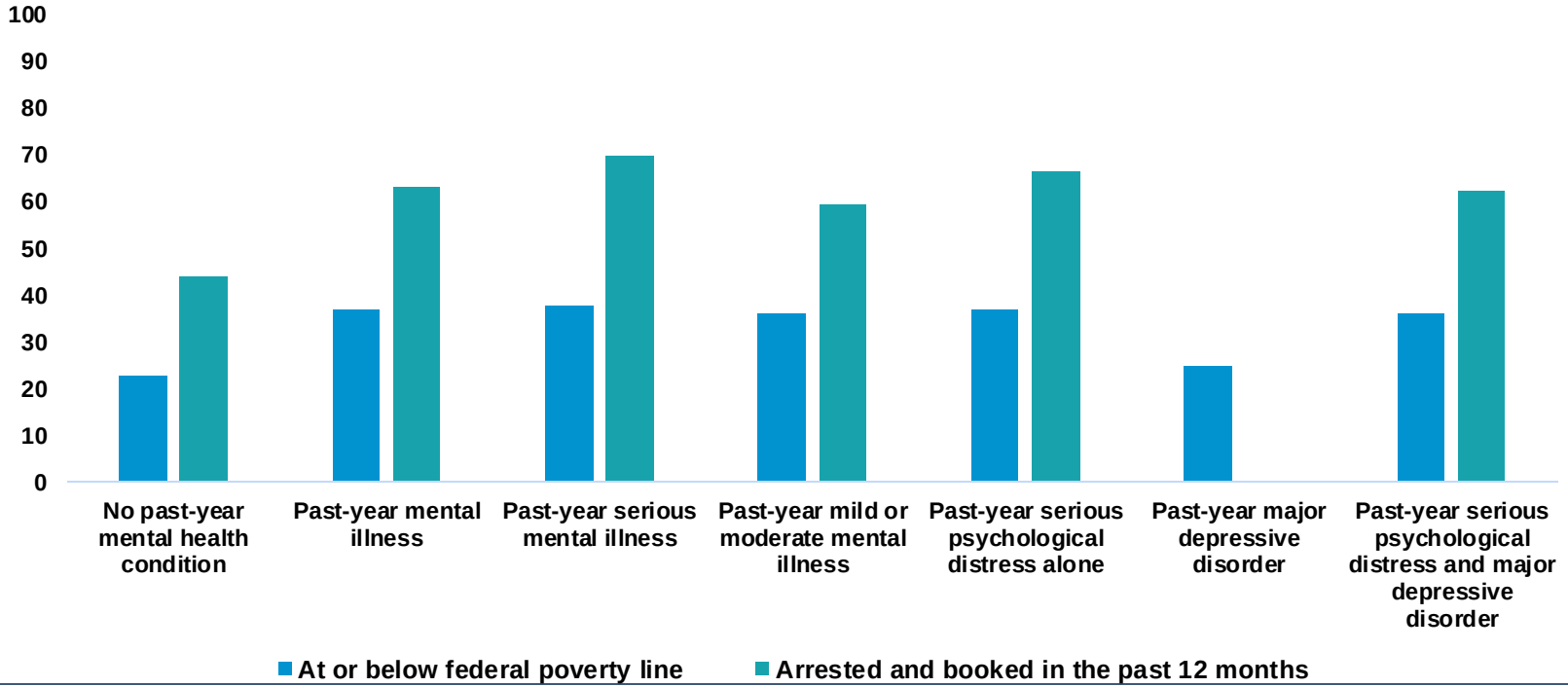
High rates of tobacco use in some populations

- Living below the federal poverty line
- Low levels of educational attainment
- Unhoused
- History of legal system involvement
- Identify as sexual gender minority
- Identify as racial/ethnic minority
- Uninsured or Medicaid insured



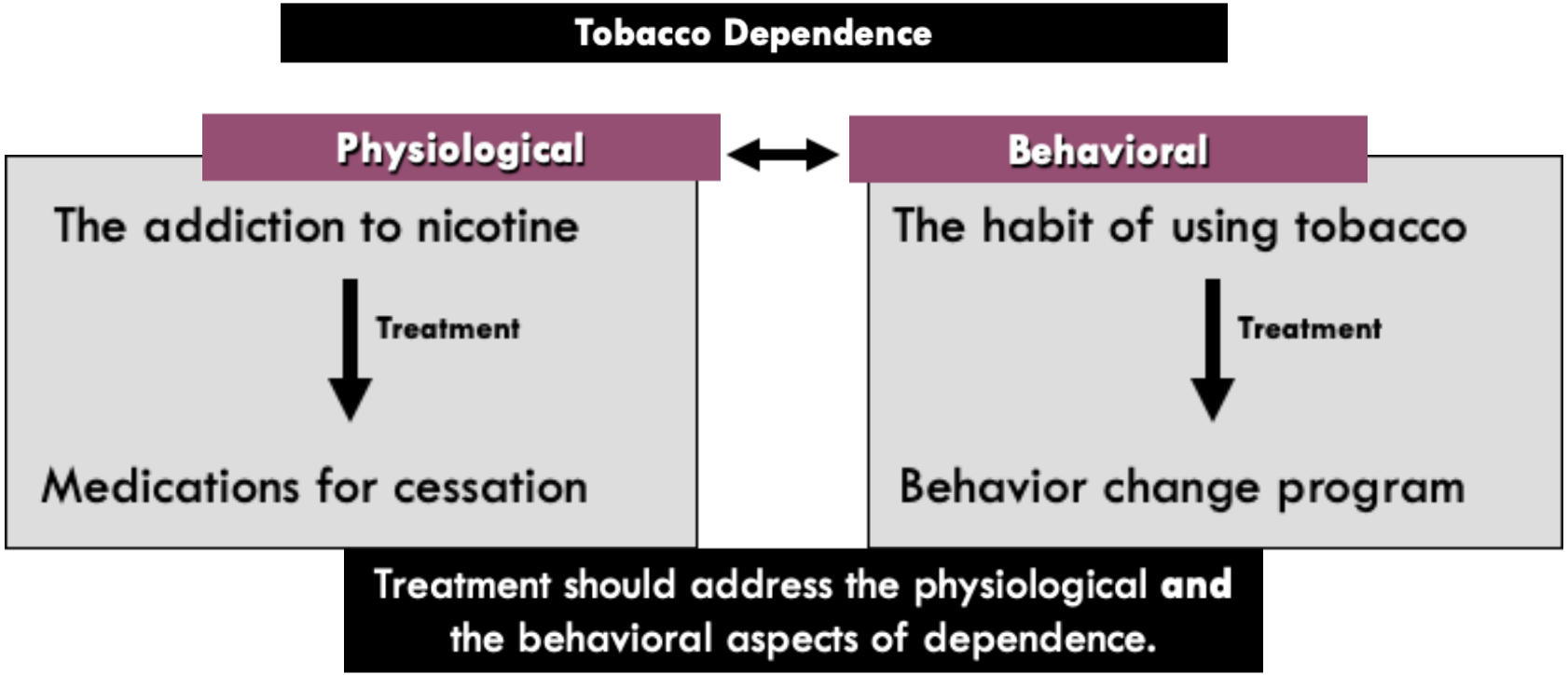
Kerry Cork, Tobacco Control Legal Consortium; Kushel at al., CASPEH study

Percentage of adults who smoke by mental health condition, income and criminal/legal system involvement



National Survey on Drug Use and Health, 2019-2020; Loretan et al., 2022

Tobacco dependence



Rxforchange.edu

Nicotine characteristics

- Primary addictive component of cigarettes
- Inhaling cigarette smoke delivers nicotine to the brain within 7 to 30 seconds
- Average of 1mg nicotine per cigarette
- Activates nicotine receptors that release dopamine and stimulate reward pathways in the brain

Benowitz N.L., et al 2009

Case 1 – Smoking cessation counseling

Mr. P is a 55 year old man with a history of chronic obstructive pulmonary disease, homelessness, poly-substance use (in remission), traumatic brain injury, mild cognitive impairment, and schizophrenia.

- ❑ Smokes 1 pack per day
- ❑ 40 pack year history
- ❑ Lives in an SRO in the Tenderloin where smoking is allowed indoors
- ❑ Not ready to quit smoking, stating “I will never quit smoking”
- ❑ Prescribed olanzapine for schizophrenia

Case 1 – Smoking cessation counseling

How would you counsel Mr. P

ASK

ADVISE

ASSESS

ASSIST

ARRANGE

Clinical Practice Guideline Treating, 2008

Case 1 – Smoking cessation counseling

What can you ask?

- How soon after you wake up do you need your first cigarette?
- How many cigarettes do you smoke daily?
- Do you use any other form of tobacco or nicotine product?
- Do you smoke indoors or outdoors?
- What is your most enjoyable cigarette of the day?

Case 1 – Smoking cessation counseling

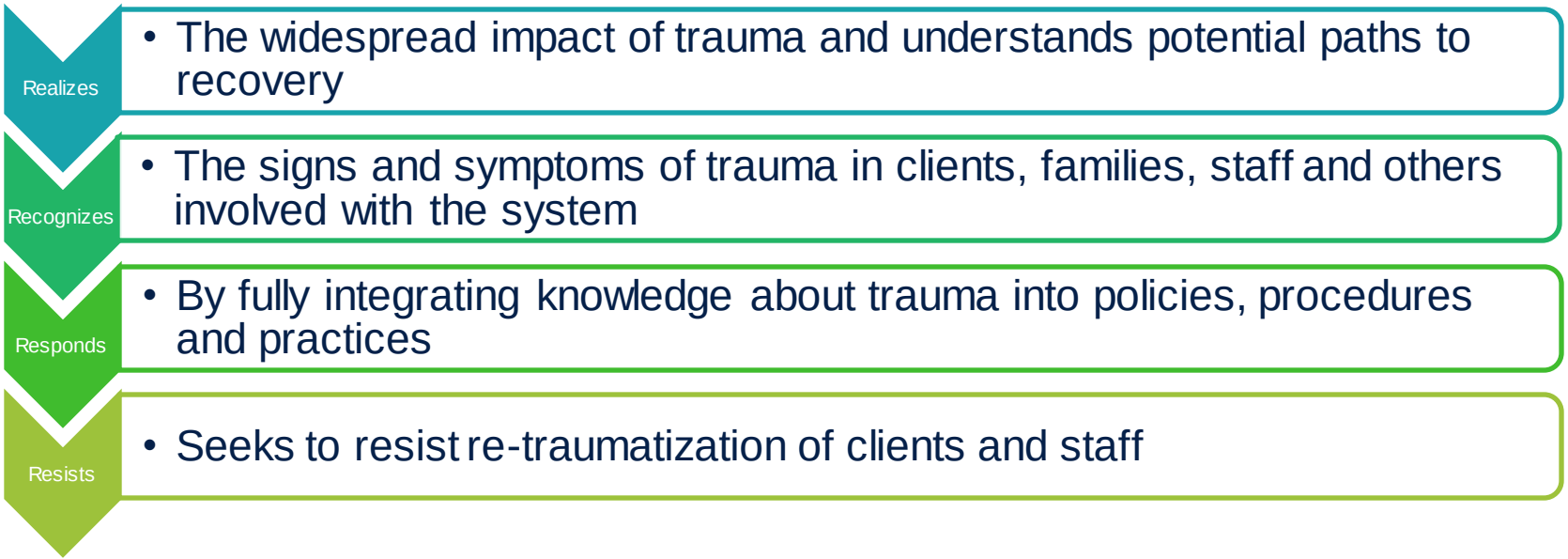
- Opt-out models offering every person who smokes, brief advice and referral to treatment
- Individual counseling over multiple sessions
- High-intensity counseling – greater length and treatment sessions
- Other forms of support include text-messaging can also help
- Financial incentives also increase quitting
- Advice to make home, car or workplace smoke-free
- Peer supporters for quitting

Aveyard, P et.al., 2012; Lancaster T. et al., 2017; Whittaker et. al., 2019

Tobacco Cessation – Behavioral Intervention

Culturally relevant tobacco use screening and intervention consideration

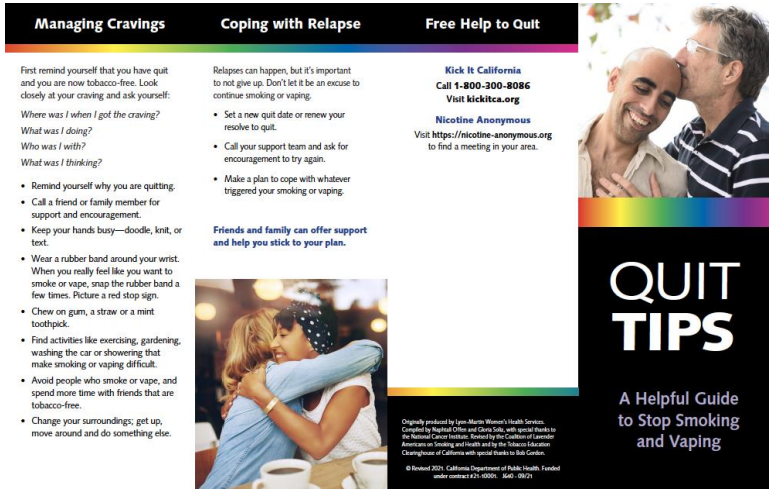
Trauma informed care



Case 2 – Medications for cessation

Smoking cessation pharmacotherapy for cessation induction

After your counseling, Mr. P is interested in smoking cessation but not ready to set a quit date. What can you do next?



Managing Cravings

First remind yourself that you have quit and you are now tobacco-free. Look closely at your craving and ask yourself:

Where was I when I got the craving?
What was I doing?
Who was I with?
What was I thinking?

- Remind yourself why you are quitting.
- Call a friend or family member for support and encouragement.
- Keep your hands busy—doodle, knit, or text.
- Wear a rubber band around your wrist. When you really feel like you want to smoke or vape, snap the rubber band a few times. Picture a red stop sign.
- Chew on gum, a straw or a mint toothpick.
- Find activities like exercising, gardening, washing the car or showering that make smoking or vaping difficult.
- Avoid people who smoke or vape, and spend more time with friends that are tobacco-free.
- Change your surroundings; get up, move around and do something else.

Coping with Relapse

Relapses can happen, but it's important to not give up. Don't let it be an excuse to continue smoking or vaping.

- Set a new quit date or renew your resolve to quit.
- Call your support team and ask for encouragement to try again.
- Make a plan to cope with whatever triggered your smoking or vaping.

Friends and family can offer support and help you stick to your plan.

Free Help to Quit

Kick It California
Call 1-800-300-8086
Visit kickitca.org

Nicotine Anonymous
Visit **https://nicotine-anonymous.org** to find a meeting in your area.

QUIT TIPS

A Helpful Guide to Stop Smoking and Vaping

Originally produced by Lyon-Martin Women's Health Services. Compiled by Raphiel O'Bee and Gloria Solis, with special thanks to the National Cancer Institute. Revised by the Coalition of Lavender Americans on Smoking and Health and by the Tobacco Education Clearinghouse of California with special thanks to Bob Gordon.

Case 2 – Medications for cessation

- Nicotine withdrawal
  - Anxiety, sadness, anger frustration, irritability, insomnia, hunger
  - Cravings to smoke
  - Peak at 2 days, diminish within 1 week
- 50%-70% of quit attempts are unassisted
  - Successful quit rate with unassisted quits is 3% to 5%
- Treatment increases quitting with 30% having long-term abstinence

Hughes JR et. al., 1986; Hughes JR et al., 2008; Krist AH et al., 2021

Case 2 – Medications for cessation – Nicotine Replacement

Over the counter medications

Nicotine gum
- 2mg, 4mg doses
- Use 1 piece every 1-2 hours
- 9-24 pieces/day

Nicotine lozenge
- 2mg, 4 mg doses
- Use 1 lozenge every 1-2hours
- 9-23 lozenges/day

20 minutes

Transdermal patch
- 21mg, 14mg, 7mg doses
- If >10 cigs/day, 21mg dose

1 hour

Prescribed medications

Nasal spray
- 6-16 cartridges/day

10 minutes

Inhaler
- 6-16 cartridges/day

20 minutes

Rxforchange.edu

Case 2 – Medications for cessation

Psychotropic medications - Bupropion

- Reduce withdrawal
- Reduce cravings
- Days 1-3: 150mg daily
- After day 3: 150mg twice daily

Nicotine receptor partial agonist – Varenicline/Chantix

- Mimic's nicotine reward pathway and blocks the binding of nicotine in the brain
- Reduce withdrawal
- Blocks reward pathway
- Days 1-3: 0.5mg daily
- Days 4-7: 0.5mg twice daily
- After day 7: 1mg twice daily

Comparative effectiveness and approaches

- Varenicline equivalent to combination NRT
  - Preferred first line treatment for tobacco cessation
- 12 weeks is standard but extended duration is more effective
- NRT and non-NRT medications can be used to prime cessation before initiating a quit attempt
  - Can be used to 4 to 6 weeks prior to a quit attempt

Rigotti et al., 2022; Anthenelli et al., 2016; USPSTF 2020; Baker TB et. al., 2021

Medications for cessation

Combination treatment is preferred to monotherapy

- Long acting and short acting NRT
  - Patch + gum or lozenge
  - Superior by 50% to the use of single formulation of NRT
- Varenicline + NRT
- Bupropion + NRT
- Bupropion + Varenicline

Koegelenberg, JAMA 2014; Besada, 2010; USPSTF 2020; Guo K et. al., 2022

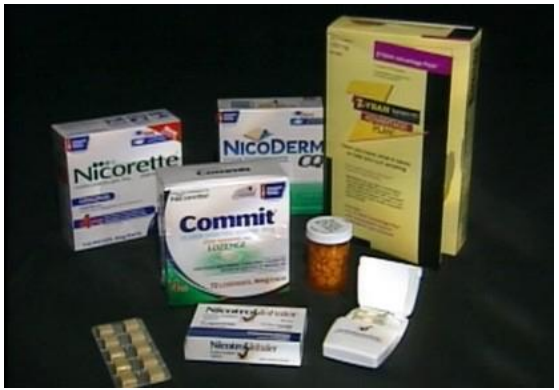
Cytisine

- Plant based alkaloid used as OTC cessation product in Central and Eastern Europe for decades
- Like varenicline – a partial agonist
- Clinical trial with 810 participants showed that 3mg dose for 6 or 12 weeks had high levels of efficacy, safety and tolerability
- Abstinence 32% vs. 7% at 9-12 weeks
- FDA might review the application in 2025-2026

Rigotti et al., 2023

Case 2 – Summary medications for cessation

- NRT, varenicline and bupropion can be used to prime cessation
- Provide these medications weeks to months before a quit date
- Clinical trials have shown this approach
  - Reduces cravings
  - Reduces consumption
  - Increases abstinence



Case 3 – Medications for cessation

Smoking and mental illness

As you recall, Mr. P has a history of schizophrenia and is treated with olanzapine. He continues to smoke 1 pack per day. You are wondering whether it is safe to prescribe medications for cessation because you have heard that treating cessation can adversely affect psychiatric outcomes. What would you do?

Case 3 – Medications for cessation

Smoking and mental illness: Myths and biases

Tobacco is necessary self-medication (*industry has supported this myth*)

They are not interested in quitting (*same % wish to quit as general population*)

They can't quit (*quit rates same or slightly lower than general population*)

Quitting worsens recovery (*not so; and quitting increases sobriety for people with alcohol use disorder*)

It is a low priority problem (*smoking is the biggest killer for those with mental illness or substance abuse issues*)

Cessation 3 – Medications for cessation

Smoking and mental illness

- Tobacco interferes with psychiatric treatment
  - Tobacco smoke can increase metabolism of some psychotropic medications (e.g., olanzapine)
  - Monitor for medication side effects during smoking cessation
- Tobacco cessation can improve depression and anxiety symptoms
- Cessation can also improve positive and negative symptoms

George et al., 2009; Evins et al., 2001; George et al., 2002

Case 3 – Medication for cessation and mental illness

Neuropsychiatric side effects – Eagles trial

- RCT of 8144 participants: 4116 assigned to the psychiatric cohort and 4028 to non-psychiatric cohort
- 140 centers and 16 countries
- Treatment with NRT, varenicline, and bupropion for 12 weeks
- No major neuropsychiatric side effects between psychiatric and non-psychiatric groups
- Varenicline was more effective than placebo, NRT, or bupropion
- Bupropion and patch were more effective than placebo

Anthenelli et al., 2016

Case 3– Medications for cessation and mental illness

- Cessation medications can be used safely in people with mental illness
- Does not worsen mental health outcomes
- Combination treatments may be necessary
- Dosages may need adjustment – e.g., bupropion and venlafaxine
- Extended duration
- Behavioral counseling

Case 4 – E-cigarettes and cessation

E-cigarettes are not an approved cessation aid

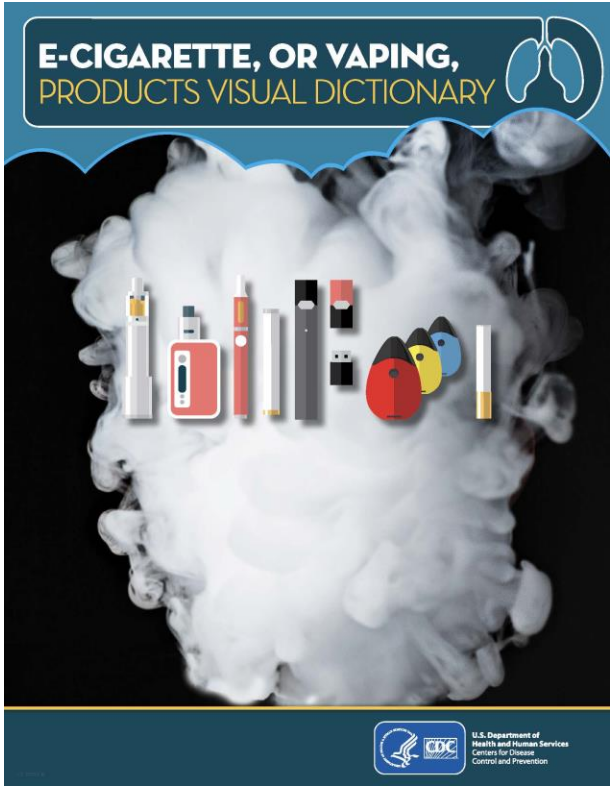
Mr. P tried NRT and bupropion for an extended duration and was able to cut down to 25% of his cigarette consumption, and attempted several quit attempts. His neighbor recently introduced him to an e-cigarette. He wants to try it. What do you advise?

Andrey Popov/istock

Case 4 – E-cigarettes and cessation

E-cigarettes are not an FDA approved cessation aid

- Consumer product, unsupervised and outside clinical trial conditions, they are not effective cessation aids
- High rates of dual use of cigarettes and e-cigarettes increases disease risk and does not aid in cessation
- E-cigarettes increase youth initiation of tobacco and nicotine products
- The recommended approach is to encourage use of FDA-approved aids for cessation



Hajek P et al., 2019; Lindson et al., 2023; Wang et al., 2021

Case 4 – E-cigarettes and cessation

- Clinical trials and Cochrane reviews showed that e-cigarettes perform similarly to varenicline and cytisine
- Controlled conditions, regulated amounts of nicotine
- Older e-cigarettes but not the newer salt-pod devices
- Efficacy only up to 6-months so long-term abstinence unknown
- Long-term safety is unknown
- Adverse effect data are lacking

Hajek P et al., 2019; Lindson et al., 2023; Wang et al., 2021; Surgeon General's Reports, 2016

What if people want to use e-cigarettes to quit tobacco use?

- First encourage FDA-approved aids for cessation
- If people still want to use consumer e-cigarettes, then encourage complete cessation of combustible tobacco
- Once they are confident in their tobacco cessation, encourage e-cigarette cessation
- There is a need for more evidence on strategies for vaping cessation

CESSATION APPROACHES for ENDS
LIMITED EVIDENCE to GUIDE TREATMENT

- Behavioral counseling
- Pharmacotherapy
  - Nicotine replacement therapy
    - If patient has switched from smoking to vaping: start with pre-vaping # cigarettes/day and TTFC to guide initial dosing
    - If user has only vaped nicotine: Estimate nicotine intake
      - ≥20 mg/day, start with 21 mg patch
      - <20 mg/day, start with 14 mg patch
      - Add short-acting NRT for break-through
    - Early follow-up to assess response and adjust dosing as needed
  - Varenicline or Bupropion SR

Therapeutic Research Center. (2019). Help patients break the e-cigarette habit. *Pharmacists Letter* (December 2019).

Workflows for tobacco treatment in primary care and behavioral health settings

Rigotti et al., 2022

Integrated treatments for tobacco use in psychiatric settings

- Improved abstinence when tobacco treatment integrated with treatment for PTSD or other mental health diagnoses
- Mental health providers uniquely poised to treat tobacco use
  - Therapeutic alliance
  - Repeated visits for psychiatric care
  - Treating tobacco use sends a message that mental health providers care about overall health

George et al., 2009

Contingency management (CM) for tobacco and substance use

- Evidence-based psychosocial therapy supported by three decades of research
- Used primarily for stimulant use disorder but also for opioid and tobacco use disorders
- Provision of incentives to reinforce desired behaviors
  - Abstinence from substances
  - Engagement in treatment
  - Adherence to medications

US Department of Health and Human Services, 2023; Becker SJ et al., 2023

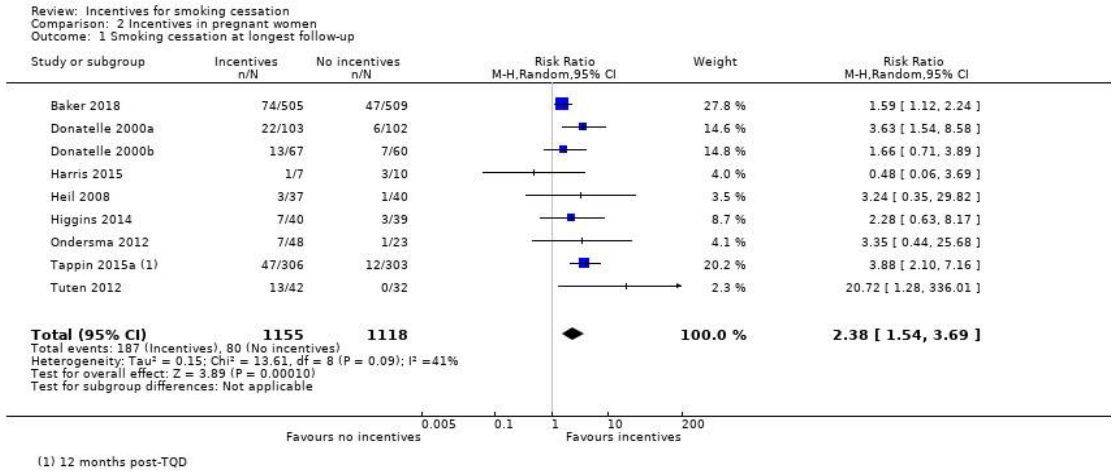
Types of CM

- Prize-based, Fish-bowl method
  - 500 price tickets
  - Half have a monetary value and half don't
  - Prize amounts range for $1-$100
- Voucher based
  - Set reinforcement for incentivized behaviors
  - Escalating schedule
  - Reset to 0 when a behavior is not achieved

US Department of Health and Human Services, 2023; Becker SJ et al., 2023

For tobacco use disorder, CM is effective

- Meta-analysis of 30 clinical trials, 21,600 participants
- 50% more likely to demonstrate 6-month abstinence
- Highest impact among people who used other substances and pregnant women



Notley et al., 2019

Policy approaches for cessation

- Clean air policies that create environments conducive to quitting inclusive of cannabis and e-cigarettes
- Policies restricting menthol and flavored tobacco
- Policies mandating tobacco treatment in substance use treatment facilities (AB 541)
- Endgame policies to eliminate sales of tobacco products

Take home messages

- It is never too late to quit tobacco use
- FDA-approved counseling and pharmacotherapy approaches are the standard of care
- Pharmacotherapy can be used for smoking cessation, extended duration, and to prime cessation behaviors
- Safe to use among people with mental health and substance use disorders
- Consumer use of e-cigarettes are not FDA approved for cessation
- Behavioral counseling and pharmacotherapy are recommended for vaping cessation

Post-Training Evaluation

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If you have not received the email within 24 hours of the training, please contact, **cngo@lifelongmedical.org**.