Helping Smokers Quit: Synergies between Tobacco Treatment Support and Tobacco Control Policy/Health Systems Interventions

MODERATED BY CORINNE GRAFFUNDER, DrPH, MPH
DIRECTOR, OFFICE ON SMOKING AND HEALTH

1

Introduction

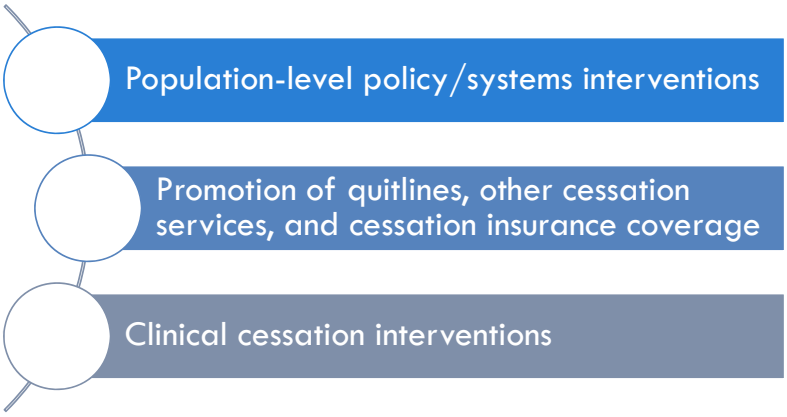
Increases in population cessation rates are driven by increasing both:

- quit attempts and
- quit success

Goal: Synergistic Interventions focused on both outcomes

2

Cessation Interventions



3

Trends in Cessation Behaviors among Adult Cigarette Smokers, 2000-2015

STEPHEN BABB, MPH
OFFICE ON SMOKING AND HEALTH
CENTERS FOR DISEASE CONTROL AND PREVENTION

National Conference on Tobacco Or Health
March 2017

4

Behaviors Examined

Cessation behaviors among adult cigarette smokers:

- Interest in quitting
- Past-year quit attempts
- Recent successful cessation
- Receipt of a health professional's advice to quit
- Use of cessation counseling and/or medication

Prevalence examined by:

- sex, age group, race/ethnicity, education, poverty status
- Census region, health insurance coverage, disability, psychological distress, sexual orientation
- Four time points: 2000, 2005, 2010, and 2015

5

2015 Findings: Adult Smokers

- 68.0% Wanted to stop smoking
- 55.4% made a past-year quit attempt
- 7.4% Recently quit smoking
- 57.2% who had seen a health professional in the past year had been advised to quit
- 31.2% used cessation counseling and/or medication when trying to quit
- 59.1% who had ever smoked had quit

6

2015 Findings: Quitting Methods

Type of treatment used:

- **6.8%** reported using counseling
- **29.0%** medication
- **4.7%** both

Type of counseling used:

- **4.1%** used a telephone quitline
- **2.8%** used one-on-one counseling
- **2.4%** used a stop smoking clinic, class, or support group

Medications used:

- **16.6%** used a nicotine patch
- **12.5%** used nicotine gum or lozenges
- **7.9%** used varenicline
- **2.7%** used bupropion
- **2.4%** used nicotine spray or inhaler

7

2000-2015 Trends

Modest but statistically significant increases occurred in:

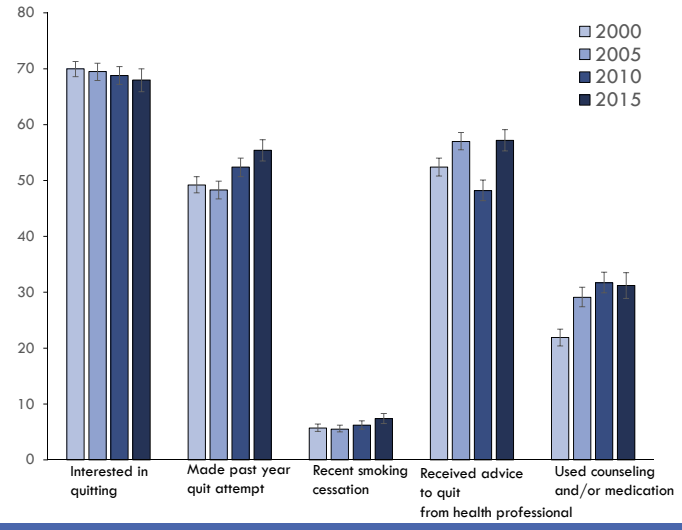
- the prevalence of past-year quit attempts (from 49.2% to 55.4%)
- recent smoking cessation (from 5.7% to 7.4%)
- receipt of a health professional's advice to quit smoking (52.4% to 57.2%)
- use of cessation counseling and/or medication (21.9% to 31.2%)

The proportion of smokers who were interested in quitting did not change over this period, after starting at a relatively high level.

Throughout this period, fewer than one third of persons used evidence-based cessation methods when trying to quit smoking.

8

Cessation intentions and behaviors among US smokers aged ≥ 18 years – NHIS, 2000-2015



Source: Babb S, Malarcher A, Schauer G, Asman K, Jamal A. Quitting Smoking Among Adults — United States, 2000–2015. *MMWR Morb Mortal Wkly Rep* 2017;65:1457–1464.

9

2015 Findings: Disparities

- Past-year quit attempts were lower in whites than in Asians and Blacks.
- Hispanics and Asians were less likely than whites to:
  - receive advice to quit
  - use cessation counseling and/or medication
- Gay/lesbian/bisexual smokers were markedly less likely than straight smokers to report using cessation counseling and/or medication.
- Recent cessation increased with education level.
- Uninsured smokers were less likely than smokers with private health insurance to:
  - receive advice to quit
  - use cessation counseling and/or medication
  - successfully quit

10

Implications

- There is substantial room for improvement in adult smokers':
  - receipt of advice to quit from a health professional
  - use of proven cessation treatments
  - recent cessation success
- Substantial variation and disparities are evident in smokers' cessation behaviors.
- Nevertheless, progress has been made in cessation.
  - Almost three in five U.S. adults who ever smoked have quit.
- The population quit rate is driven by the rate of
  - quit attempts and
  - quitting success
  - Increasing both these rates is important
  - Both these rates have increased over time

11

Citation

Babb S, Malarcher A, Schauer G, Asman K, Jamal A. Quitting Smoking Among Adults — United States, 2000–2015. *MMWR Morb Mortal Wkly Rep* 2017;65:1457–1464.

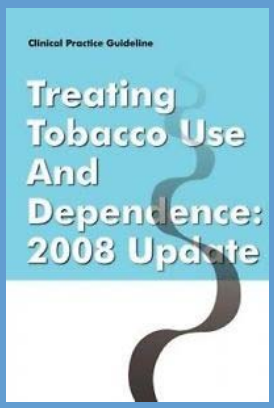
Available at http://dx.doi.org/10.15585/mmwr.mm6552a1

12

Health Systems Change and Cessation Coverage

SIMON MCNABB, SENIOR POLICY ADVISOR
POLICY UNIT
OFFICE ON SMOKING AND HEALTH

13



Tobacco use:

"Indeed, it is difficult to identify any other condition that presents such a mix of lethality, prevalence, and neglect, despite effective and readily available interventions."

14

The power & potential of barrier-free insurance cessation coverage

70% of smokers (~30 million) see a primary care provider each year

Progress

- 2014 Meaningful Use data 96% had their tobacco use status (current, former, never user) documented in the Electronic Health Record for that visit.

Challenge

- Less than 1/3 of these smokers left the visit with recommended evidence-based counseling and medications to quit.

15

Elements of Health Systems Change to increase quit attempts and success

- Barrier-free/evidence-based comprehensive cessation insurance coverage
  - Both public and private
  - Crafting the right benefit – Barrier Free!
- Changing clinician behavior to increase utilization
  - Meaningful Use/Electronic Health Records
  - Clinical Quality Measures
- Proper evaluation

16

The MassHealth Cessation Story

Reducing Tobacco Use and Improving Health Among Massachusetts Medicaid Members

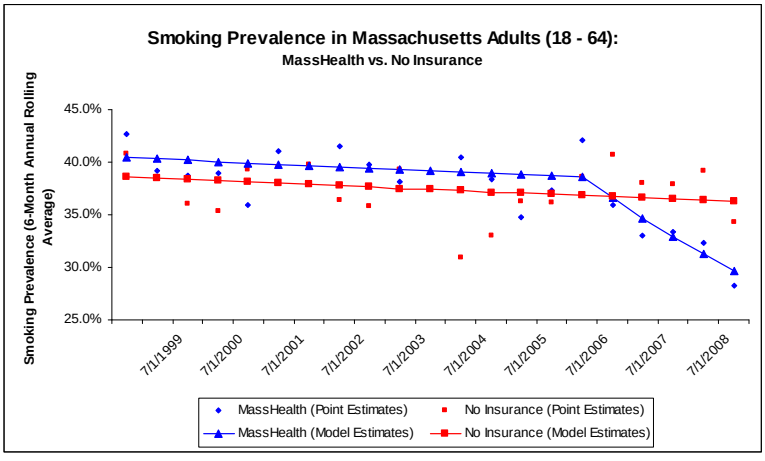
Massachusetts Health Reform legislation, April 2006

Legislation mandated:

- Smoking Cessation Benefit
  - Two treatment/quit attempts per year
  - 16 counseling sessions per year, any combination of individual or group
  - All FDA-approved medications and any combination
  - 90-day supply per treatment attempt; two treatments per 12 month cycle
- Promotion to both providers and beneficiaries
- Extensive evaluation
  - Benefit utilization, smoking prevalence, health outcomes, and health care cost reductions

17

The MassHealth Cessation Story



18

The MassHealth Cessation Story

Reducing Tobacco Use and Improving Health Among Massachusetts Medicaid Members

Lessons Learned

- No Hoops: make benefit accessible to members and providers
- Engaged cessation experts in key benefit design decisions
- Repetitive promotion to providers and consumers
- Mandated evaluation; utilization tracked monthly from outset
- Questions about Medicaid coverage included in BRFSS prior to launch

19

Barrier-free/evidence-based cessation insurance coverage

Medicaid
- States prohibited from excluding FDA-approved cessation medications
- Medicaid must include comprehensive benefit for pregnant women
- Medicaid expansion provides no-cost sharing cessation coverage

Medicare
- Covers individual counseling and prescription medications
- Removed some cost-sharing

Private Insurance
- Would be in compliance if they covered, without cost sharing or prior authorization, 2 quit attempts per year, including individual, group, and telephone counseling & all FDA approved medications

20

Quality Measures
Electronic Health Records

	Stage 1 Core Objective (required)	Stage 1 Core Measure	Stage 2 Core Objective (required)	Stage 2 Core Measure	Stage 3 Proposed
Meaningful Use of Electronic Health Records	Record smoking status for patients 13 years old or older	More than 50% of all unique patients 13 years or older seen by the EP or admitted to the eligible hospital or CAH have smoking status recorded as structured data	Record smoking status for patients 13 years old or older	More than 80% of all unique patients 13 years or older seen by the EP or admitted to the eligible hospital or CAH have smoking status recorded as structured data	Smoking status still required, but does not have to be reported for Meaningful Use attestation. New Clinical Quality Measure "Recommended" for Eligible Professionals - Closing the Referral Loop: Receipt of Specialist Report
	Clinical Quality Measures (All Stages of MU) **One of nine "Recommended" for Eligible Professionals (no tobacco intervention measure for Hospitals)** Tobacco Use: Screening and Cessation Intervention. Percentage of patients 18 and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.				

21

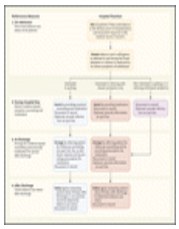
Joint Commission Hospital Performance Measures

Measure 1: adult patients screened during hospitalization

Measure 2: tobacco users offered cessation counseling & medication during hospitalization

Measure 3: tobacco users offered referral to counseling and medications at discharge

~~Measure 4 (suspended): one month follow-up assessing treatment use and cessation~~



22

Proper evaluation

Supply side: health systems and/or medical providers

- Evidence-based, barrier-free cessation insurance coverage
- Awareness: medical providers
- Practice patterns: Increase in the number of health care providers and health care systems following public health service guidelines

Demand side: smokers

- Awareness, knowledge, and intention to quit
- Number of quit attempts, use of proven cessation treatments, and quit attempts with proven cessation treatments
- Cessation rate, reduced smoking prevalence
- Smoking-related morbidity and mortality, smoking-related health disparities

23

National Mass Media Campaigns Motivate Smokers to Quit Through:
- graphic, emotional motivational ads
- an offer of help

TIM MCAFEE, MD, MPH

POLICY UNIT

OFFICE ON SMOKING AND HEALTH

National Conference on Tobacco Or Health
March 2017

24

Tips Campaign:

Primary goal is to increase quit attempts in U.S. adult smokers:	Secondary goal is to increase success of quit attempts:	Maximize synergistic effects of these two goals:
• By exposing smokers to graphic, emotional ads about health consequences	• By tagging ads with evidence-based cessation resources	• An offer of help makes ads go down easier"

25

Tips From Former Smokers

Motivates smokers to make a quit attempt by….

Focusing on living with the health consequences of smoking, rather than dying

Disrupting their beliefs that:
- "I will quit later."
- "I'm going to die anyway."

Offering new information linking smoking to health conditions

Providing a free resource to encourage them to stop smoking (1-800-QUIT-NOW or CDC.gov/tips)

26

Quit Line + Media = Win-Win

Media Campaigns Benefit Quitlines:

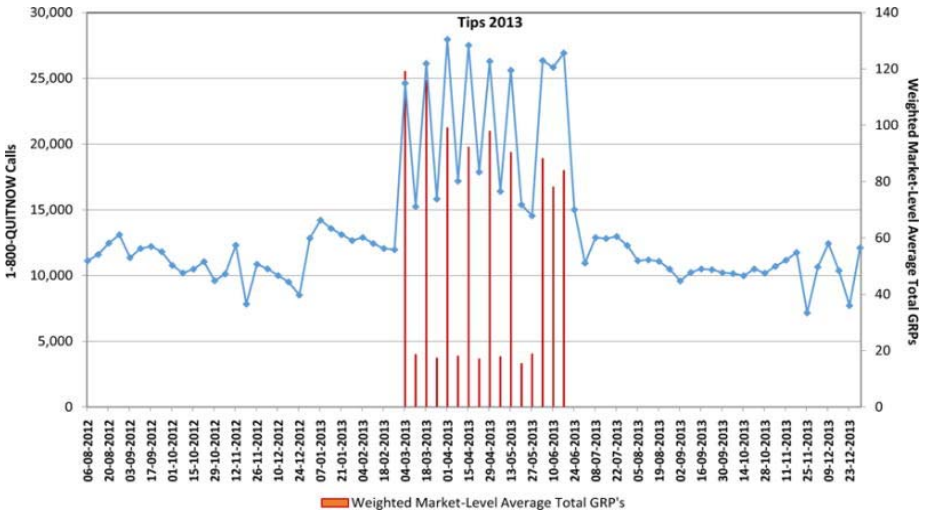
- Increase calls - predictably
- Decrease money required to promote the quitline
- Increase acceptability of calling quitline

Quitlines Benefit Media Campaigns:

- Offering help increases acceptability of the message
- Easily measured outcome demonstrates success

27

2013 TIPS campaign with 1-800 QN volume sawtoothing: Call volume for 1-800 QUIT-NOW (blue) and Tips 2013 campaign gross ratings points (GRPs (red)



28

TIPS ADS

29

TIPS ADS

30

TIPS campaign results:

2012 (before/after)	2013 (Higher Dose)

• About 3 out of 4 smokers and non-smokers recalled seeing ads
• 12% increase in quit attempt rate
• 1.6 million smokers made a quit attempt due to ads
• Non-smoker recommendation to smokers doubled (6 million)
	• Higher ad awareness (87%)
	• Higher disease awareness
	• Increased quit attempts
	  • 11% increase overall
	• Increase most dramatic in:
	  • African-Americans
	  • Those with chronic disease
	• Non-smokers talked even more about dangers of smoking

31

Conclusions

- The *Tips* campaign seeks to motivate adult smokers to quit
- Provides smokers who want help quitting with sources of help (1-800-QUIT-NOW and the *Tips* website)
- These two components of the campaign operate synergistically; neither would be as effective without the other because it combines these elements
- Has the potential to impact both quit attempts and quit success
- Promotion of quitlines and other cessation services has the potential to increase quit attempts and cessation even among smokers who never use these services

32

Population-Level Cessation Interventions

ERIK AUGUSTSON

NCI/TOBACCO CONTROL RESEARCH BRANCH

33

Core Phases of Behavioral Interventions

- Reach
- Engagement
- Sustained Engagement
- Re-engagement
  - High dropout rates, common across all treatment modalities

34

Challenges for Traditional Intervention Impact & Sustainability

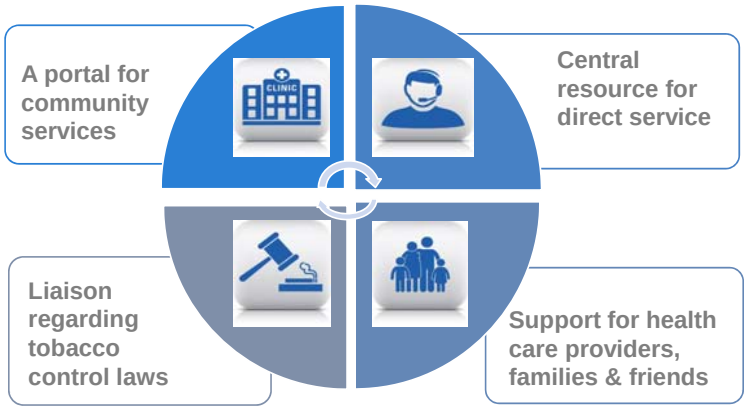
- Expense of expanding reach
- Costs of expanding staff
- Realities of healthcare system clinical work flows
- Limited utilization by smokers
- "Gaps" in treatment between appointments
- Patient increasing reliance on alternate forms of communication

35

Tobacco Cessation Support

36

Various Functions and Benefits of Quitlines



Cost-Sharing

Commercial health plans

Large employers
- State
- City and County
- Private employers

Public insurance plans
- Medicaid and other public funded plans

38

Federal Partnerships

39

A Few Considerations

- ✓State quitlines provide an established infrastructure that utilizes evidence-based practices as well as offer economies of scale that can be advantageous.
- ✓Payers and employers may seek to streamline contracting and payment process for quitline services
- ✓Services can vary between state and private payer

40

Mobile Health (mHealth)

- The use of technology to remotely monitor, track, respond and/or deliver an intervention for health related events.
- Examples of common technology used: mobile-optimized websites, text messaging, Smartphone applications (Apps), and remote sensors.

41

mHealth Potential

- Reach
- Reduces cost burden on healthcare system
- Engagement with intervention platforms
  - Multiple available communication technologies
  - Strong uptake in target populations
  - Increase access to interventions
  - Decrease barriers to participation (scheduling, transportation, etc.)
  - Decrease space/time gap between treatment & behavior
  - Seamlessly integrate user interaction with treatment within their daily life
  - Interactive functionality & improved "dose"

42

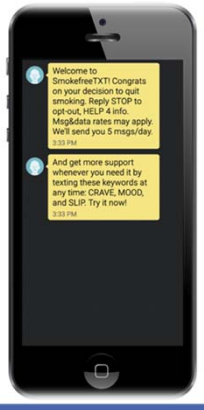
mHealth Challenges

- "Lighter touch" intervention
- Consistency of cell phone access
- Type of device
- Multiple users per device
- Fee structures and cost
- Populations with Low Literacy
- Role within larger public health infrastructure

43

Examples from Smokefree.gov Initiative

smokefreeTXT



- Websites, text-based programs, smartphone apps, social media
- Empirically-based
- Reach: ~4.5 million users FY2016
- Tx efficacy 10-20%
- Sustained engagement continues to be a challenge: Core Tx Challenge
- Re-engagement: ~20-30% users re-enroll

44

Helping Smokers Quit: Synergies between Tobacco Treatment Support and Tobacco Control Policy/Health Systems Interventions

Emerging Issues in Helping Smokers Quit

GILLIAN SCHAUER, PHD, MPH
SENIOR POLICY FELLOW, CDC FOUNDATION
GUEST RESEARCHER, OFFICE ON SMOKING AND HEALTH, CDC

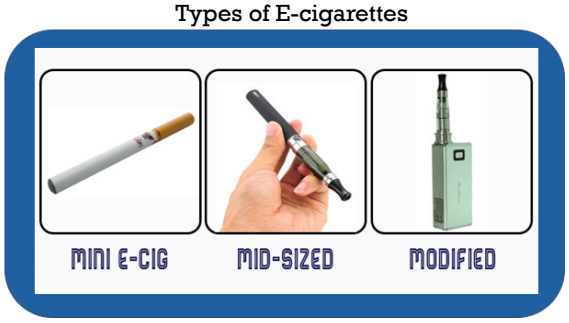
45

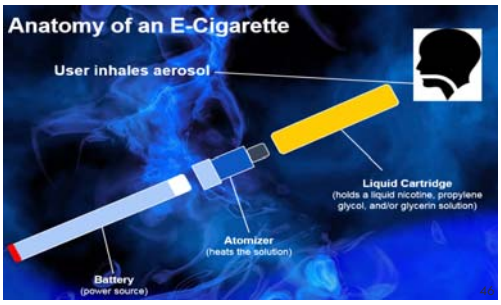
E-cigarettes

and other

Electronic Nicotine Delivery Systems (ENDS)

Types of E-cigarettes





Is there a potential benefit for E-cigarettes?

Answer: Under certain circumstances

Complete long term substitution by established smokers

Assist in rapid transition to a society with little or no use of combustible products

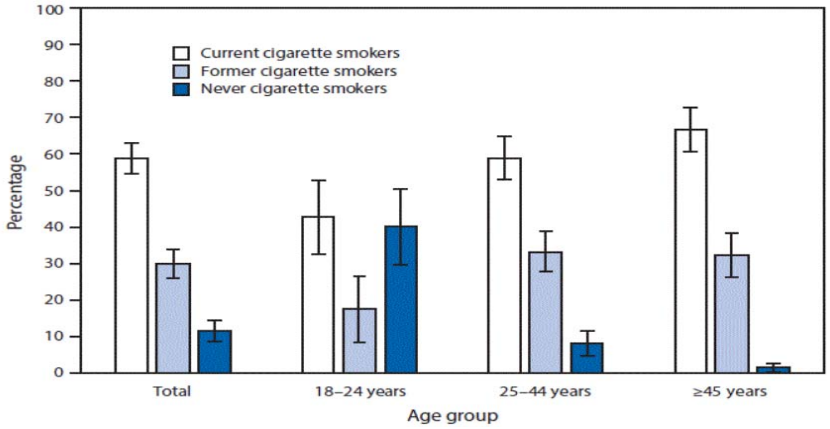
Short-term use if shown to produce successful & permanent cessation of combustible products

However, "Cutting back" is not enough—even a few cigarettes per day is dangerous

47

A majority of adult e-cigarette users also smoke conventional cigarettes: "dual use."

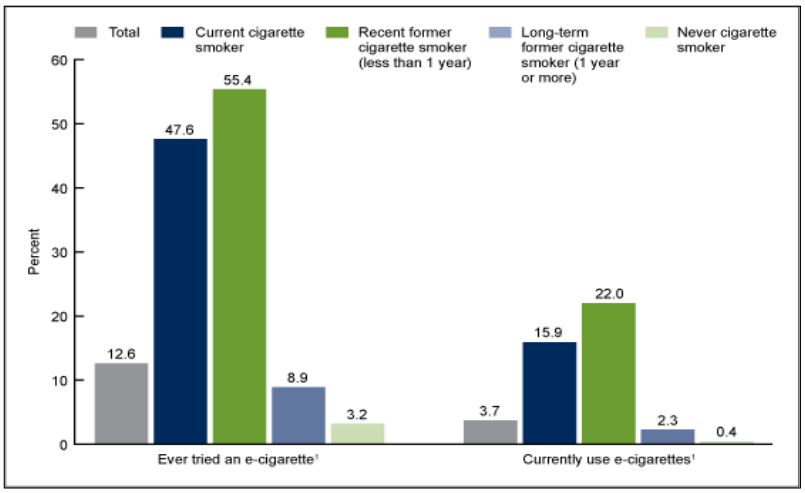
Cigarette Smoking Status Among Current Adult E-Cigarette Users, by Age Group



Source: QuickStats: Cigarette Smoking Status Among Current Adult E-cigarette Users, by Age Group — National Health Interview Survey, United States, 2015. MMWR Morb Mortal Wkly Rep 2016;65:1177. DOI: http://dx.doi.org/10.15585/mmwr.mm6542a7

48

Percent of US adults who had ever tried and who currently use e-cigarettes, by cigarette smoking status, 2014



Source: CDC/NCHS, National Health Interview Survey, 2014. http://www.cdc.gov/nchs/data/databriefs/db217.htm

49

E-Cigarette Use As A Smoking Cessation Tool in Adults

"The long-term safety of e-cigarettes is unknown."

"Overall, the USPSTF found the evidence on the use of ENDS as a smoking cessation tool in adults, including pregnant women, and adolescents to be insufficient."

https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/tobacco-use-in-adults-and-pregnant-women-counseling-and-interventions1

50

Menthol

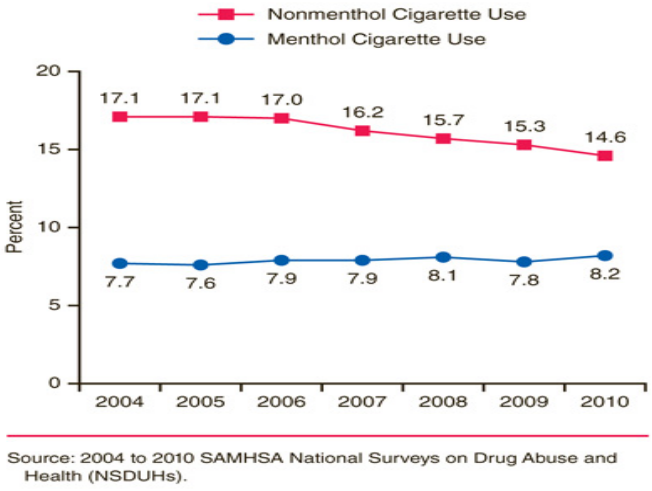
Menthol is an additive that tastes like mint and has cooling, analgesic and soothing effects that can increase attractiveness and ease of use among naïve smokers.

Menthol is known to have chemosensory properties; for example, it synergistically interacts with nicotine and stimulates the trigeminal nerve to elicit a 'liking' response for a tobacco product.

Use of menthol cigarettes is disproportionately higher among certain populations such as non-Hispanic black persons, and individuals who are lesbian, gay, bisexual, or transgender.

Source: Tobacco Products Scientific Advisory Committee. Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations. March 23, 2011 51

Figure 1. Past Month Menthol and Nonmenthol Cigarette Use among Persons Aged 12 or Older: 2004 to 2010



Source: 2004 to 2010 SAMHSA National Surveys on Drug Abuse and Health (NSDUHs).

52

Cessation is less likely to be successful among smokers of menthol cigarettes.

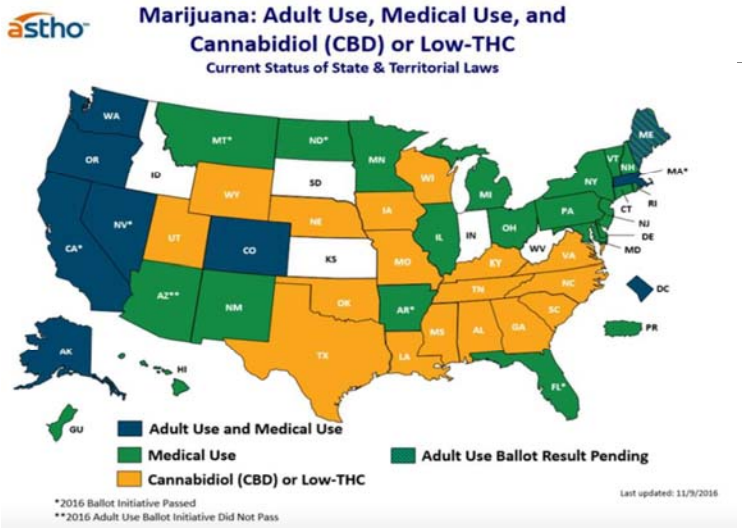
FDA Tobacco Products Scientific Advisory Committee Report

The evidence is sufficient to conclude that a relationship is more likely than not that the availability of menthol cigarettes results in lower likelihood of smoking cessation success in ***African Americans****, compared to smoking non-menthol cigarettes.*

The evidence is sufficient to conclude that a relationship is as likely as not that the availability of menthol cigarettes results in lower likelihood of smoking cessation success in ***other racial/ethnic groups****.*

Source: Tobacco Products Scientific Advisory Committee. Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations. March 23, 2011 53

Marijuana



54

Marijuana and Tobacco overlap

- **Data suggest a strong relationship between marijuana (MJ) and tobacco:**[1]

  ~70% of adult marijuana users have past month use of a tobacco product.

  ~18% of adult tobacco users have past month use of marijuana.

- **Can be combined with tobacco in a variety of products (blunts, spliffs, hookah, pipes, heat-not-burn…)**
- **Tobacco products often used as "chaser"** [2, 3]
- **Increasing blurred line between tobacco and marijuana products.**

Sources: [1] Schauer, Berg, Kegler, Windle, 2015 [2] Sifaneck, Johnson, Dunlap, 2006 [3] Schauer, Hall, Berg, Windle, Kegler, 2016

55

Unclear relationship to cessation

Tobacco Use → Marijuana dependence and cessation[1]

Marijuana Use → ? Tobacco dependence and cessation

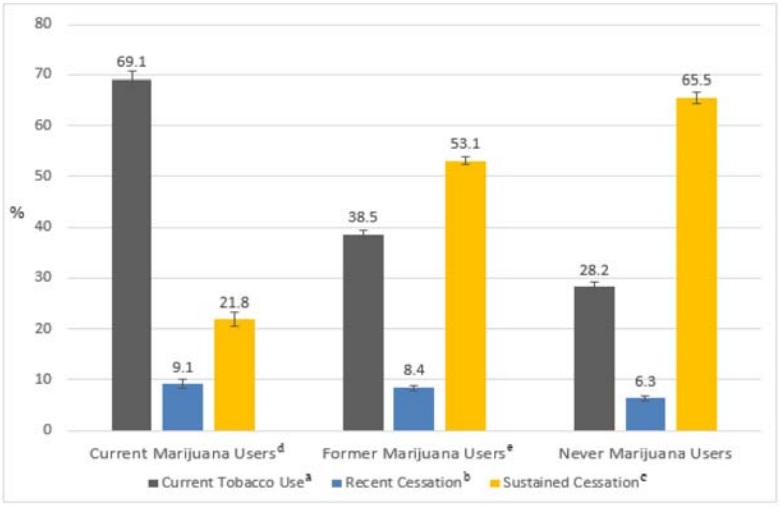
<u>Research not supporting adverse effects on cessation:</u>
Study of individuals enrolled in a smoking cessation intervention found past week **MJ use was associated with greater 7-day tobacco abstinence.**[2]

<u>Research suggesting adverse effects on cessation:</u>
Longitudinal study of adults <45 years from 2002 → **co-users had greater baseline odds of reporting continued tobacco use** (and lower odds of reporting trying to quit tobacco) at follow up 13 years later – especially if daily MJ users.[3]

Sources: [1] Peters, Budney, & Carroll, 2012 [2] Leyro, Hendricks, & Hall, 2015 [3] Ford, Vu, & Anthony, 2002

56

Prevalence of Current Tobacco Use, Recent Cessation, and Sustained Cessation by Current Marijuana Use, Among Adult Ever Tobacco Users, NSDUH, 2013-2014



[a] Past 30 day use of cigarettes, cigars, or smokeless tobacco [b] Quit tobacco 30 days to 12 months [c] Quit tobacco >12 months
[d] Past 30 day use of marijuana, hashish, or blunts [e] Ever use of marijuana, hashish, or blunts, but no past 30 day use

57

Possible Mechanisms

- THC and nicotine may interact to enhance the rewarding effects, making quitting harder.[1]
- Cues for relapse or substitution?
  - Shared mode of use (smoking, vaping)
  - Shared product types (cigarette-like joints, same/similar ENDS)
  - Environment and social norms

- Menthol - May be present in blunts, spliffs; cigarettes often used as blunt "chasers". Effects between marijuana and menthol are unknown, but if both negatively impact cessation individually, could have compounded effect.
- Unknown impact of THC/CBD ratio and/or marijuana strain

Sources: 1 Valjent, Mitchell, Besson, Caboche, & Maldonado, 2002

58

Discussion

- Mixed evidence on association between marijuana use and tobacco association
- Unclear if dual treatment of marijuana when quitting tobacco is beneficial/needed – but people trying to quit marijuana should also be advised to quit tobacco.
- Further surveillance and research is warranted to assess the relationship between marijuana use and tobacco cessation, including:
  - How frequency of marijuana use impacts tobacco cessation
  - How mode of marijuana use impacts tobacco cessation
  - How marijuana strain and potency impact tobacco cessation
  - Impact of menthol on THC and nicotine together

59

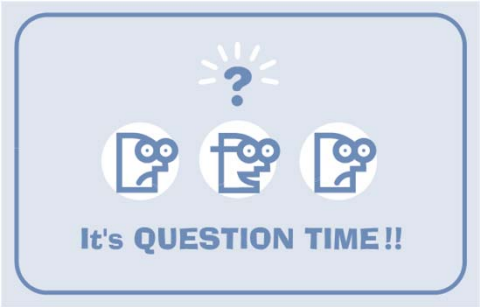
Summary

✓ Results on the association between marijuana use and tobacco cessation are unclear. Additional surveillance and research is warranted to better understand how concurrent marijuana use impacts tobacco cessation.

✓Adults must quit smoking cigarettes completely to realize potential benefits of e-cigarettes. However, e-cigarettes are not currently an FDA-approved quit aid.

✓The use of menthol cigarettes is associated with lower likelihood of successful smoking cessation.

Questions?



61

Thank You!

Corinne Graffunder, DrPH, MPH, Director, CDC Office on Smoking and Health (OSH)

Steve Babb, MPH, Public Health Advisor, OSH

Simon McNabb, Senior Policy Advisor, OSH

Xin Xu, PhD, Senior Economist, OSH

Tim McAfee, MD, MPH, Senior Medical Officer, OSH

Erik Augustson, PhD, Program Director, Tobacco Control Research Branch Behavioral Research Program, National Cancer Institute

Anna Schecter, MPH, Public Health Advisor, OSH

Gillian Schauer, PhD, MPH, Guest Researcher, OSH

Brian King, PhD, Deputy Director for Research Translation, OSH