Million Hearts®

# Identifying and Treating Patients Who Use Tobacco

## ACTION STEPS for Clinicians

A MILLION HEARTS® ACTION GUIDE

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# Contents

To reduce the burden of heart attack and stroke in the United States, the U.S. Department of Health and Human Services launched Million Hearts®. The goal of this initiative is to prevent 1 million heart attacks and strokes by 2017 by implementing proven and effective interventions in clinical settings and communities. Million Hearts® brings together communities, health systems, nonprofit organizations, federal agencies, and private-sector partners from across the country to fight heart disease and stroke.

Smoking is one of the leading causes of heart disease and stroke, accounting for 32% of coronary heart disease deaths.[1] Although the proportion of U.S. adults who smoke cigarettes has steadily decreased over the past 50 years, to approximately 17% in 2014, large disparities in smoking rates remain across racial/ethnic groups, socioeconomic statuses, and geographic areas and among people with mental health and substance use disorders.[1,2,3]

About 36.5 million U.S. adults continue to smoke cigarettes, resulting in about 480,000 smoking-related deaths each year in the United States.[1,2] At least 70% of cigarette smokers see a clinician annually,[4] and most want to quit.[4,5] However, fewer than 25% of tobacco users leave a health care visit with evidence-based counseling and medication.[6]

The purpose of this document is to provide evidence-based, tested tobacco use identification and intervention strategies for busy clinicians. These strategies were gathered from the published scientific literature, including the U.S. Public Health Service–sponsored Clinical Practice Guideline *Treating Tobacco Use and Dependence: 2008 Update*.[4]

The strategies are organized into two categories of actions:

- ▷ **Improve delivery system design** (Table 1).
- ▷ **Increase evidence-based brief interventions for patients who use tobacco** (Table 2 and Table 3).

This document concludes with additional resources and references where more detailed information can be found.

## Strategies for Tobacco Cessation

Tobacco dependence is a chronic health condition that often requires multiple, discrete interventions by a clinician, team of clinicians, or health systems. The 5 A's brief intervention for treating tobacco dependence (**Ask**, **Advise**, **Assess**, **Assist**, and **Arrange** follow-up) is a useful way to understand and address tobacco dependence treatment and organize the clinical team to implement an intervention. Although a single clinician can provide all 5 A's, it is often more time- and cost-effective to have the 5 A's divided up among teams of clinicians and staff.

Clinician treatment extenders such as tobacco cessation quitlines, Web-based cessation interventions, and in-clinic and local cessation programs, can and should be incorporated into the 5 A's approach. These treatment extenders support and streamline clinical interventions.

| Table 1. Actions to Improve Tobacco Cessation Delivery System Design[4] |
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| **Implement a standardized tobacco use identification and intervention system and workflow,** including asking about or verifying every patient's tobacco use status. See Table 2 for an evidence-based brief intervention model. |
| **Identify and engage tobacco cessation champions within your practice or organization.** |
| **Proactively track and contact patients who use tobacco,** using an electronic health record (EHR)–generated list, patient registry, or other data source. |
| **Proactively provide ongoing support for patients who use tobacco** through telephone, EHRs, office visits, or other means, as you do for patients with other chronic conditions. |
| **Implement systems to alert clinicians or physicians about patients identified as tobacco users.** Build clinical decision support into EHRs, such as best practice advisories, algorithms, alerts, reminders, clinical guidelines, counseling, templates or language, tobacco cessation medication, and referral forms. |
| **Provide feedback to individual clinicians and clinic sites on their rate of tobacco use identification and intervention.** Provide recognition for high performance. Invite outstanding performers to share their strategies for tobacco use identification and intervention with their peers. |
| **Remind patients and staff that all tobacco cessation clinical services are offered at no charge to the patient.** Use both counseling and medication (unless contraindicated), as currently recommended by the U.S. Preventive Services Task Force and the U.S. Public Health Service. In May 2014, the U.S. Departments of Health and Human Services, Labor, and Treasury issued a guidance on what the Affordable Care Act preventive services requirement means for tobacco cessation coverage. The guidance recommends covering at least two quit attempts per year, with each quit attempt including four tobacco cessation counseling sessions of at least 10 minutes each and a 90-day course of one or more of the seven Food and Drug Administration (FDA)–approved cessation medications. The guidance recommends covering both counseling and medications with no cost-sharing or prior authorization. |
| **Encourage clinicians to take continuing education on evidence-based tobacco dependence treatment.** The University of Wisconsin provides a free, online continuing medical education course[7] (*http://bit.ly/2siWnlR*) based on the 2008 Public Health Service Clinical Practice Guideline *Treating Tobacco Use and Dependence*.[4] |

| Table 2. The 5 A's Tobacco Cessation Brief Intervention Model[4] | |
|---|---|
| **Ask** all patients about tobacco use.* | Identify or verify and document tobacco use status of every patient at every visit.<br>*"The USPSTF concludes that the current evidence is insufficient to recommend electronic nicotine delivery systems (ENDS) for tobacco cessation in adults, including pregnant women. The USPSTF recommends that clinicians direct patients who smoke tobacco to other cessation interventions with established effectiveness and safety (previously stated)."[8] No evidence-based cessation interventions have been identified specifically for exclusive ENDS users. |
| **Advise** all tobacco users to quit. | In a clear, strong, and personalized manner, urge every tobacco user to quit. "The most important thing you can do to improve your health is to quit smoking, and I can help you." Advice should be:<br>• **Clear.** "It is important that you quit smoking/using chewing tobacco now, and I can help you. Occasional or light smoking is still dangerous."<br>• **Strong.** "As your clinician, I need you to know that quitting smoking is the most important thing you can do to protect your health now and in the future. The clinic staff and I will help you."<br>• **Personalized.** Tie tobacco use to current symptoms and health concerns, social and economic costs, and/or the impact of tobacco use on children and others in the household. "Continuing to smoke makes your asthma worse, and quitting may dramatically improve your health. Quitting smoking may reduce the number of ear infections your child has." |
| **Assess** willingness to quit now. | For each tobacco user, ask whether she or he is willing to make a quit attempt now. "Are you willing to quit within the next month if I provide help for you?"<br>For former tobacco users, ask how recently she or he quit and whether they are experiencing any challenges to remaining abstinent. |
| **Assist** the tobacco user with a quit plan. | For the patient willing to make a quit attempt, assist with creating a quit plan, offer medication, and provide or refer the patient for counseling to help them quit. Evidence strongly suggests that the combination of medication and counseling dramatically improves the chances of quitting successfully.<br>The action steps below may be completed by an individual clinician or by a team of health care providers. Providing referrals does not take the place of your clinical intervention; rather, referrals are an extension of the tobacco cessation treatment you provide.<br>• **Help the patient create a quit plan.** As part of a patient's preparation for quitting, encourage them to take the following steps **(STAR)**:<br>◦ **S**et a quit date, ideally within 2 to 4 weeks.<br>◦ **T**ell your family, friends, and coworkers about quitting and ask for their support.<br>◦ **A**nticipate challenges, particularly during the critical first few weeks. Challenges include nicotine withdrawal symptoms.<br>◦ **R**emove tobacco products from your environment. Prior to quitting, avoid smoking in places where you spend a lot of time (e.g., work, home, car). Make your home smoke-free. |

**Table 2. The 5 A's Tobacco Cessation Brief Intervention Model[4]** (continued)

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|---|---|
| **Assist** the tobacco user with a quit plan (continued). | • **Recommend FDA-approved medication,** except where contraindicated or in specific populations for which there is insufficient evidence of effectiveness (e.g., pregnant women, adolescents, people who smoke five or fewer cigarettes per day, and smokeless tobacco users). Explain how medication reduces withdrawal symptoms and makes it more likely that patients will succeed in quitting. Consider use of combination therapy to provide patient with both a long-acting and a short-acting (craving relief) medication. FDA-approved medications include the following:<br>◦ Short-acting: Nicotine gum, nicotine lozenge, nicotine inhaler, nicotine nasal spray<br>◦ Long-acting: Nicotine patch, bupropion SR (non-nicotine pill and nicotine antagonist), varenicline (non-nicotine pill, nicotine antagonist, and nicotine agonist), patch and bupropion SR in combination<br>• **Provide practical counseling,** including problem-solving or skills training:<br>◦ **Make abstinence the goal.** Striving for abstinence is essential. "Not even a single puff after the quit date."<br>◦ **Review past quit experience.** Help the patient identify what helped and what did not work in previous quit attempts. Build on past successes.<br>◦ **Anticipate challenges or triggers for the upcoming quit attempt.** Discuss challenges or triggers and how the patient can overcome them (e.g., avoiding triggers, altering routines). Stress self-efficacy.<br>◦ **Avoid alcohol.** Because alcohol is associated with relapse, encourage the patient to consider limiting alcohol consumption or abstaining from alcohol while quitting, at least for the first 30 days.<br>◦ **Engage other smokers in the household.** Quitting is more difficult when there is another smoker in the household. Patients should encourage housemates to quit with them or at least to not smoke in their presence and in shared homes and vehicles.<br>• **Provide referral to supplemental counseling and other resources,** including information on or referral to a tobacco cessation quitline, such as the U.S. 800-QUIT-NOW helpline.<br>◦ **Sources:** In-house clinic or system tobacco cessation services; state tobacco quitlines (800-QUIT-NOW); local, state, or tribal tobacco cessation resources; the National Cancer Institute cessation website *http://www.smokefree.gov*; and the Centers for Disease Control and Prevention (CDC) Tips From Former Smokers website, *http://www.cdc.gov/tobacco/campaign/tips*<br>◦ **Locations:** Tobacco cessation counseling resources or referrals integrated into the EHR or available in exam rooms<br>For the **recent quitter** and any patient experiencing challenges with quitting, provide relapse prevention and support. Initiate a brief discussion with the patient focused on the following:[4]<br>• Successes the patient has had in quitting<br>• Issues encountered (e.g., stress, other smokers)<br>• Correct use of any medication prescribed |

**Table 2. The 5 A's Tobacco Cessation Brief Intervention Model[4]** (continued)

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|---|---|
| **Assist** the tobacco user with a quit plan (continued). | For patients **unwilling to quit** at this time, provide brief motivational messages to increase the likelihood of a future quit attempt, such as, "I feel so strongly about tobacco use and its effect on your health that I will ask you about it when I see you next." Use "Enhancing Patient Motivation to Quit Tobacco Use—The 5R Model."[4]<br>• **Relevance.** Encourage the patient to indicate why quitting is personally relevant, being as specific as possible. Motivational information has the greatest impact if it is relevant to a patient's disease status or risk, health concerns, family or social situation (e.g., having children in the home), age, gender, and other important patient characteristics (e.g., prior quitting experience, personal barriers to cessation).<br>• **Risks.** Ask the patient to identify potential negative consequences of smoking. Highlight those consequences that seem most relevant to the patient. Examples of consequences include shortness of breath, exacerbation of asthma, increased risk of respiratory infections, harm to pregnancy, impotence, infertility, heart attacks, strokes, lung and other cancers, chronic obstructive pulmonary disease, osteoporosis, long-term disability, and the need for extended care. Risks to the patient's family members from secondhand tobacco smoke include increased risk of heart disease, stroke, and lung cancer in spouses or partners, and increased risk of sudden infant death syndrome, asthma attacks, ear infections, and respiratory infections in children.<br>• **Rewards.** Ask the patient to identify potential benefits of stopping tobacco use, and highlight those that seem most relevant. Examples of rewards include improved health; improved sense of taste and smell; healthier babies/children; setting a good example for children; saving money; better-smelling home, car, clothing, and breath; improved self-esteem; and improved appearance.<br>• **Roadblocks.** Ask the patient to identify barriers to quitting, and provide treatments (problem-solving counseling, medication) that address these barriers. Typical barriers include withdrawal symptoms, fear of failure, fear of weight gain, lack of support, depression, being around other tobacco users, and limited knowledge of effective treatment options.<br>• **Repetition.** Remind the patient that most people make repeated quit attempts before they are successful. |
| **Arrange** follow-up with the patient. | All patients receiving the brief tobacco cessation intervention should receive follow-up to monitor challenges and medication adherence. Follow-up can take place at a clinic, via EHR, or via phone. |

**Table 3. FDA-Approved Tobacco Cessation Medications*[4, 9,10]**

| Medication and description | Cautions/ Warnings | Side Effects | Dosage | Use | Availability |
|---|---|---|---|---|---|
| **Nicotine Gum** (2 mg or 4 mg)<br>Short-acting rescue for cravings | • Use caution with dentures<br>• Do **not** eat or drink 15 minutes before use or during use | • Mouth soreness<br>• Stomach ache | • One piece every 1–2 hours<br>• 6–15 pieces per day<br>• If smoking more than 30 minutes after waking: 2 mg<br>• If smoking 30 minutes after waking: 4 mg<br>• Waking: 4 mg | • After quitting: Up to 12 weeks<br>• **Optional** before quitting: Up to 6 months prior to quit date with smoking reduction | OTC only:<br>• Generic<br>• Nicorette |
| **Nicotine Inhaler**<br>Package insert: *http://on.pfizer.com/277NZv1*<br>Short-acting rescue for cravings | May irritate mouth or throat at first (improves with use) | Local irritation of mouth and throat | • 6–16 cartridges per day<br>• Inhale 80 times per cartridge<br>• Can save partial cartridge for next dose | • After quitting: Up to 6 months, tapering at end<br>• **Optional** before quitting: Up to 6 months prior to quit date with smoking reduction | Prescription only:<br>Nicotrol inhaler |
| **Nicotine Lozenge** (2 mg or 4 mg)<br>Short-acting rescue for cravings | • Do **not** eat or drink 15 minutes before use or during use<br>• Take one lozenge at a time<br>• Use no more than 20 in 24 hours | • Hiccups<br>• Cough<br>• Heartburn | • If smoking more than 30 minutes after waking: 2 mg<br>• If smoking within 30 minutes of waking: 4 mg<br>• Weeks 1–6: 1 every 1–2 hours<br>• Weeks 7–9: 1 every 2–4 hours<br>• Weeks 10–12: 1 every 4–8 hours | 3–6 months | OTC only:<br>• Generic<br>• Commit<br>• Nicorette mini-lozenge |
| **Nicotine Nasal Spray**<br>Package insert: *http://on.pfizer.com/1TzNm34*<br>Short-acting rescue for cravings | • **Not** for patients with asthma<br>• May irritate nose (improves over time)<br>• May cause dependence<br>• Do **not** inhale | Nasal irritation | • Dose = 1 squirt per nostril<br>• 1–2 doses per hour<br>• 8–40 doses per day | 3–6 months, tapering at end | Prescription only:<br>Nicotrol NS |

**Table 3. FDA-Approved Tobacco Cessation Medications*[4, 9,10] (continued)**

| Medication and description | Cautions/ Warnings | Side Effects | Dosage | Use | Availability |
|---|---|---|---|---|---|
| **Nicotine Patch**<br>(7 mg, 14 mg, or 21 mg)<br>Long-acting steady-state replacement | Do **not** use if you have severe eczema or psoriasis. | • Local skin reaction<br>• Insomnia | • 1 patch per day<br>• If smoking 10 or more cigarettes per day, start at 21 mg for 4 weeks<br>• 14 mg for 2–4 weeks<br>• 7 mg for 2–4 weeks | • After quitting: 12 weeks<br>• **Optional** before quitting: Up to 6 months prior to quit date with smoking reduction | OTC or prescription:<br>• Generic<br>• Nicoderm CQ<br>• Nicotrol |
| **Bupropion SR 150**<br>Package insert: *http://bit.ly/1T6NFbM*<br>Steady-state, long-acting, non-nicotine pill; nicotine antagonist | **Not** for use if you:<br>• Use monoamine oxidase inhibitors (MAOIs)<br>• Use other forms of bupropion<br>• Have a history of seizures<br>• Have a history of eating disorders | • Insomnia<br>• Dry mouth | • Days 1–3: 150 mg every morning<br>• Days 4–end: 150 mg twice daily | • Start 1–2 weeks before quit date<br>• Use for 2–6 months | Prescription only:<br>• Generic<br>• Zyban<br>• Wellbutrin SR |
| **Varenicline**<br>Package insert: *http://bit.ly/1q9f3rS*<br>Long-acting, steady-state non-nicotine pill; nicotine antagonist and agonist | Use with caution if you:<br>• Have renal impairment<br>• Have serious psychiatric illness<br>• Are undergoing dialysis | • Nausea<br>• Insomnia<br>• Abnormal dreams | • Days 1–3: 0.5 mg every morning<br>• Days 4–7: 0.5 mg twice daily<br>• Day 8–end: 1 mg twice daily | • Start 1 week before quit date<br>• Use for 3–6 months | Prescription only:<br>Chantix |
| **Combinations**<br>• Patch plus bupropion<br>• Patch plus gum<br>• Patch plus lozenge or inhaler | • Only patch plus bupropion is FDA-approved.<br>• Follow instructions for individual medications. | See individual medications above. | See above. | See above. | See above. |

* Excludes pregnant smokers, adolescents, smokers of five or fewer cigarettes per day, and smokeless tobacco users. Insufficient evidence exists to support tobacco cessation medication use for these populations.[7]

## Resources

### Improve Delivery System Design

- Systems Change: Treating Tobacco Use and Dependence: *http://1.usa.gov/1Ty5SZZ*
- A Practical Guide to Working with Health-Care Systems on Tobacco-Use Treatment: *http://1.usa.gov/1rLah54*
- Healthcare Provider Reminder Systems, Provider Education, and Patient Education: Working with Healthcare Delivery Systems to Improve the Delivery of Tobacco-Use Treatment to Patients—An Action Guide: *http://bit.ly/1q9go20*

### Increase Evidence-Based Tobacco Cessation Brief Interventions

#### Practice Resources

- U.S. Public Health Service Clinical Practice Guideline: *http://1.usa.gov/1q9gC9d*
- How to Implement the U.S. Public Health Service Clinical Practice Guideline: *http://bit.ly/1SYWemN*
- Smoking Cessation in Your Practice: *http://bit.ly/1XhgMJ3*
- Guide to Clinical Preventive Services, 2014: Tobacco Use in Adults: *http://1.usa.gov/1WkK4aY*
- Clinician resources from the Centers for Disease Control and Prevention's Tips From Former Smokers campaign: *http://1.usa.gov/1rD0AG5*

#### Patient Resources

- 800-QUIT-NOW (800-784-8669)—Free phone tobacco cessation quitline, available nationwide
- Tips From Former Smokers: *http://1.usa.gov/KMtzR3*
- Tobacco cessation resources: *http://1.usa.gov/N7clMw*
- SmokefreeTXT—Text message encouragement, advice, and tips to help smokers quit: *http://1.usa.gov/1T7dq8D*
- Tobacco cessation resources for women: *http://1.usa.gov/1WVHCWW*
- Tobacco cessation resources for teens: *http://1.usa.gov/1s7LhFY*
- Tobacco cessation resources for veterans: *http://1.usa.gov/1Okp5wx*
- Spanish-language tobacco cessation resources: *http://1.usa.gov/23BWFoJ*
- Smoking Cigarettes: How Do I Quit?: *http://bit.ly/1UN2mjv*

## References


1. U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. Available from: *http://www.surgeongeneral.gov/library/reports/50-years-of-progress/*.
2. Centers for Disease Control and Prevention. Current cigarette smoking among adults—United States, 2005–2015. *MMWR Morb Mortal Wkly Rep* 2016;65:1205–11. Available from: *https://www.cdc.gov/mmwr/volumes/65/wr/mm6544a2.htm?s_cid=mm6544a2_w*.
3. Blackwell DL, Lucas JW, Clarke TC. Summary health statistics for U.S. adults: National Health Interview Survey, 2012. National Center for Health Statistics. *Vital Health Stat* 2014;10(260):8. Available from: *http://www.cdc.gov/nchs/data/series/sr_10/sr10_260.pdf*.
4. Fiore MC, Jaén CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update*. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service, 2008. Available from: *http://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/index.html*.
5. Centers for Disease Control and Prevention. Quitting Smoking Among Adults—United States, 2000–2015. *MMWR Morb Mortal Wkly Rep* 2017;65:1457–1464. Available from: *https://www.cdc.gov/mmwr/volumes/65/wr/mm6552a1.htm?s_cid=mm6552a1_w*.
6. Jamal A, Dube SR, Malarcher AM, Shaw L, Engstrom MC. Tobacco use screening and counseling during physician office visits among adults—National Ambulatory Medical Care Survey and National Health Interview Survey, United States, 2005–2009. *MMWR Suppl.* 2012;61(2):38–45.
7. University of Wisconsin-Madison. Tobacco Use and Dependence: An Updated Review of Treatments. January 27, 2016. Available from: *https://uwmadison.co1.qualtrics.com/jfe/form/SV_3L4ERLkVbbJidWB*.
8. Siu AL; US Preventive Services Task Force. Behavioral and pharmacotherapy interventions for tobacco smoking cessation in adults, including pregnant women: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2015;163:622–34.
9. Fiore MC, Baker TB. Treating smokers in the health care setting. *N Engl J Med*. 2011;365(13):1222–31.
10. University of Wisconsin Center for Tobacco Research & Intervention. Quit Tobacco Series. 2018. Available from: *http://www.ctri.wisc.edu/documents/2.CME_pharmacotherapy_table.pdf*.

Million Hearts® is a U.S. Department of Health and Human Services initiative that is co-led by the Centers for Disease Control and Prevention and the Centers for Medicare & Medicaid Services, with the goal of preventing one million heart attacks and strokes by 2017.

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