Provider Attitudes and Practices on Treating Tobacco Dependence in New York City After 10 years of Comprehensive Tobacco Control Efforts

Journal of Primary Care & Community Health Volume 12: 1–7 © The Author(s) 2021 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/2150132720957448 journals.sagepub.com/home/jpc

\$SAGE

Elizabeth A. Kilgore^{1,2}, Elizabeth Needham Waddell³, Kathryn M. Tannert Niang², Jennifer Murphy², Sayone Thihalolipavan^{2,4}, and Shadi Chamany²

Abstract

To design strategies for provider education and implementation of clinical guidelines, this study investigated how physicians (I) approach tobacco cessation, including barriers to screening and treatment, (2) prioritize tobacco cessation, and (3) perceive the role of public health. Semi-structured focus groups were conducted with 30 New York City physicians across specialties. Physicians reported that they: (I) understand risks of smoking, as well as basic counseling and medications for smoking cessation; (2) do not always follow clinical guidelines for treatment of smoking cessation; (3) prioritize treatment of patients based upon a number of criteria; and (4) see the role of public health and the city health department as separate from the clinical environment, despite population-level interventions to reduce smoking. Physicians understand the importance of treating tobacco dependence, but identified barriers to treatment, some of which are health system-related. Further, patients who do not yet present with smoking-related illness may receive less intense interventions.

Keywords

cessation, comorbidity, education/training-professionals, policy, public health, qualitative research

Dates Received: 13 June 2020; revised: 16 August 2020; accepted: 16 August 2020

Introduction

In recent years, the national prevalence of both adult and youth smoking has decreased. In New York City (NYC), a combination of smoke-free air laws, tobacco price increases, other legislative actions, public health media, and New York State Smokers' Quitline services have contributed to a 38% reduction in smoking prevalence among adults and 71.6% among youth (2001-2017). In 2017, 886 000 adult New Yorkers are estimated to smoke cigarettes, including a large proportion of whom report light (<10 cigarettes per day) or non-daily smoking patterns (78.5%), a proportion that was 63.6% in 2002. While this means they are overall experiencing less exposure to toxins, both of these groups are still at risk for tobacco-related illness despite a lower smoking intensity. 3.4

Physicians are critical actors in tobacco control, given the efficacy of evidence-based treatment. Behavioral interventions with or without medication increase the likelihood of quitting among people who smoke by as much as 1.5 to 2 times.⁵⁻⁷ The United States Preventive Services Task Force (USPSTF) recommends that clinicians screen all adults for tobacco use, advise them to stop using tobacco, and provide evidence-based behavioral interventions and pharmacotherapy for cessation.⁵ This includes recording a patient's smoking status as a vital sign and following the 5 A's framework.⁶ Ask every patient at every visit about tobacco use, and document it in the patient record; Advise

¹Fraser Communications, Los Angeles, CA, USA

²New York City Department of Health and Mental Hygiene, Long Island City, NY, USA

³OHSU-PSU School of Public Health, Portland, OR, USA

⁴Health and Human Services Agency, County of San Diego, CA, USA

Corresponding Author:

Elizabeth Needham Waddell, OHSU-PSU School of Public Health, CB669, 3181 Sam Jackson Park Rd., Portland, OR 97239, USA. Email: waddelle@ohsu.edu

the patient to quit; Assess the patient's willingness to do so; Assist with the patient's attempt to quit; and Arrange for follow-up. However, national data suggest that adoption and implementation of these evidence-based guidelines has been sub-optimal.^{8,9}

As part of its comprehensive tobacco control strategy, the NYC Department of Health and Mental Hygiene (DOHMH) supports cessation through clinical interventions as a crucial approach, complementing populationlevel approaches. The majority (67.8%; n=613000) of NYC adults who smoke and have a personal doctor report having seen their doctor in 2015, presenting opportunities for clinicians to screen and treat a majority of people who use tobacco. 10 Additionally, DOHMH programs such as Public Health Detailing and the Primary Care Information Project provide education and technical assistance to health care organizations and providers.11 An important aspect of that work is understanding the knowledge and resources that exist within clinical settings, as well as the strengths and limitations of systems that organize healthcare delivery, whether hospital-based, team-based, or private practice.

In order to design appropriate strategies for provider education and support standardized implementation of clinical guidelines on tobacco use in the context of shifting patterns in smoking intensity among people who smoke, we conducted a qualitative study to capture the knowledge, attitudes, and experiences of primary care physicians (PCPs) and other specialty clinicians. Understanding their approach to tobacco use in those with lower smoking intensity and their perceptions of risk was of particular importance for this study, as it will guide public health messaging.

Methods

This qualitative study using focus group discussions and preceding brief individual questionnaires was conducted with 5 groups of New York City physicians. Physicians were recruited by a vendor with experience conducting physician focus groups using the following criteria provided by DOHMH: (1) a mix of practices/hospitals serving populations with varied rates of Medicaid, Medicare, commercial insurance, and no insurance; (2) only 1 practice represented per NYC hospital; (3) representation of all 5 NYC boroughs; (4) variation in age of physicians; and (5) variation in physician years in practice. Focus groups were chosen rather than individual interviews, as we wanted data generated through the process of physicians discussing beliefs and practices with other physicians. The discussion guide was designed to uncover: (1) how physicians approach tobacco cessation and treatment, including with patients reporting light and non-daily smoking; (2) how they prioritize cessation in practice; and (3) their perceptions of the role of public health in tobacco treatment. Each focus group, lasting between 105 and 120 min, included 6 physicians (30 total) and a professional moderator. Groups were audio recorded and transcribed.

We adopted an integrated approach to analyze the focus group data which involved development, finalization, and application of a code structure.12 Our process began using a set of a priori codes grounded in our research questions and evolved to include codes that emerged from the team's extensive review and discussion of the focus group transcripts until theoretical saturation was reached. 13,14 De-identified transcripts were imported into Atlas.ti 7.1 and originally coded by 1 investigator who established an initial list of codes and coding rules. To assess reliability of the initial coding scheme, a second investigator coded 1 of the transcripts using the same set of codes and definitions. Applications of each code were compared, and discrepancies were discussed among coauthors to achieve consensus. Codes were refined as needed for clarity and relevance. The final code book included 37 high level codes used across all 5 transcripts. These codes formed 10 general categories, which informed identification of major themes presented below.

This study was approved in January 2014 by the DOHMH's Institutional Review Board (IRB) under 45 CFR §46.110(b)(1)(category F7).

Results

Sample Characteristics

Participating physicians' practices included patients from all 5 boroughs of NYC and served patients across all demographic groups, including age, sex, race, ethnicity, education, income, and insurance status. Two groups included specialists and surgeons (4 cardiologists, 4 pulmonologists, 3 otolarygnologistss, 1 general surgeon), 1 group included psychiatrists (N=6), 1 group included primary care physicians (PCP) (4 family medicine/general practice, 2 internal medicine), and 1 group included emergency medicine physicians (N=6).

Of physicians surveyed prior to each focus group (N=30), 60% reported having received formal training in treatment for tobacco dependence/use. Among those with formal training, 65% received training during medical school, 53% during residency, 18% during fellowship, and 18% during post-graduate training. Seven of the 30 participants were female. About half of participants were under 40 years of age.

Emergent Themes

Across specialties, we identified 4 consistent themes that emerged from the focus group discussions. These included variation (and limitations) in physicians' approach to treating patients who smoke, a broad range of barriers to treating tobacco use, challenges physicians faced deciding who and how to treat for tobacco use, and extensive discussion of the

Kilgore et al 3

role of public health in leading efforts toward population-based smoking cessation. These themes are described below in the physicians' own words, and interpreted in the Discussion.

How Do Doctors Approach Treatment?

Providers, without exception, understood smoking as devastating to the health of their patients. Many felt comfortable with their ability to treat smoking patients, especially those with history of an acute event, like a stroke or heart attack. They saw such events as an opportune time to treat tobacco dependence, as it is when patients are particularly motivated to quit: "When they say they smoke, I say, you need to quit. Because usually they're here because they have cardio problems. And their medications have less efficacy because of the effect of smoking on the liver. So they need to understand that so the efficacy of the medication will go up."

Nicotine patches, gum, and inhalers were the most commonly recommended cessation medications. These medications were viewed as mildly successful and easy for the patient to obtain over-the-counter and/or through government-sponsored programs. Prescription medications like varenicline and bupropion were viewed as more effective for cessation but also more costly. Additionally, there was a risk of adverse events and need for follow up with these options: "I had one guy who was so nauseous on it that he was like, 'of course I quit. I couldn't even smoke. I'm sick.' He quit though."

When counseling, some focused on the positive—what patients stand to gain by quitting: "I tell patients that quitting smoking is the number one thing they can do for their health." Physicians also emphasized the expense of cigarettes and the savings from quitting.

However, other providers focused on the negative impacts smoking can have on health including cancers, breathing problems, amputations, and sexual dysfunction: "I say the average smoker dies five years earlier and that can be pretty persuasive."

Other physicians discussed with patients the impact smoking has on the family, either from the patient's reduced length and quality of life or the impact of secondhand smoke on loved ones. "I talk to them about their kids—how could you do this to your four-year-old?" Many physicians suggested that having family members participate in cessation conversations is critical, though most agreed success is unlikely if there is another person in the household who smokes.

Many physicians also mentioned that electronic medical records were helpful in reminding them to screen for tobacco use: ". . .so I have to check up if they're a current every-day smoker, or current occasional smoker, a former smoker, or non-smoker. If they're a former smoker then you put in when they quit, what you had to quit. And current,

daily or current occasional we put in, quantitate how much they smoke per day on average."

What Are the Barriers to Treating Tobacco Use?

Clinical guidelines stress the importance of counseling smokers and prescribing cessation medications. However, the vast majority of the physicians in the focus groups did not mention following the gold standard "5 A's model" for treating tobacco dependence.

Some providers felt their training was inadequate to treat smoking: "Our training was more about how to document [smoking]." Providers felt especially inadequately trained for the counseling aspect of treatment: "I tell them all, patients find it very difficult, it's not just them. . .but I don't feel trained to talk in depth." Most reported that the training they had on counseling methods was short (<30 min) and focused on patient intake and asking about smoking history—not on how to encourage patients to quit. For the majority, training occurred in medical school or during residency, which was up to 30 years prior for long-practicing physicians. Outside of psychiatrists, few had training on motivational interviewing or other behavior change techniques to prompt patients to quit or engage in other healthy behaviors.

Although physicians of all specialties acknowledged their role to treat tobacco dependence, there was an assumption among specialty physicians that tobacco cessation should be handled in the primary care setting because PCPs have more time with their patients: "It's every clinician's responsibility. But by the same token, most people will go to see their general doc. . .How much time do you have?"

PCPs agreed it is their role to treat tobacco dependence; however, they too felt there is insufficient time to do so properly and that they must balance this with other priorities: "It's so variable depending on how busy you are, what's going on. But it'll be on the patient's problem list, they've got a problem list of 10, and they've got a couple of active things. I might not even mention it. But you know, I try to. Conversely, if they've got nothing and they just kind of came in for something that's really nothing, I might spend time on that."

For specialists treating smoking, they saw their role as only preventing progression of the disease treated: "I think for the pulmonary doctors it's just part of our way of trying to intervene in the progression of the disease, because there's no question that has to do with the progression of COPD."

Emergency medicine physicians expressed doubts about their ability to influence patient's smoking: "I think I realized that I'm not gonna be able to change someone's behavior seeing them once in the emergency department. . I can tell them, 'In light of your illness, and in light of you having a really bad cough or pneumonia, you should probably stay

away from smoking for the next week or two weeks to decrease the likelihood of getting worse'. But I'm making the assumption that they're not going to be so wowed by my medical expertise here, my patient care, they're gonna stop smoking altogether."

For psychiatrists, a patient's smoking could also be an indication of worsening psychological health: "A change in the intensity of smoking may signal. . .a symptom of worsening of psychopathology—something that somebody getting very stressed [sic] and they start smoking more frequently."

Those physicians who have access to cessation counselors and health educators feel that these are the appropriate professionals to provide care: "I would have a smoking-cessation educator, somebody who's dedicated. They would have more time. They could give like maybe a 30-minute slot as opposed to a 15-minute slot. Whereas we have to do all the medical problems."

There was frustration among physicians about their patients' struggles with and their reasons for not quitting, and the health problems they could avoid if they did so: "Most of these smokers come in with some sort of cough or bronchitis. . . I'll tell them '. . . you're coming here six times a year. And every two months for some sort of cough or something. . . By smoking, you're. . . twice as frequent of getting [sic]. . .a cough and all these bronchitis stuff, as anyone else. And it takes longer to get better. So if you want to try this, you might have a chance of skipping four months not to come here and see me.' And sometimes that works. And when they come next time, I say '. . . Did you stop smoking? 'Cause I told you if you stop smoking, you don't have to come and see me as often.' And they'll say 'you know, I tried for like a week. And it didn't work. 'And I'll say 'well, did you try the patch?' 'Oh, no. I forgot what it was, I lost it. . . 'So I say 'if you have problems with the patch, I'll give you a lozenge. I'll give you gum. You can't come up with the same excuse all the time.' I know it's an excuse. They didn't use it, they didn't fill it. But I try to exhaust all their excuses."

Some physicians believed that the available cessation medications are ineffective: "Sometimes I feel uncomfortable because these things don't work. Nothing works really. So you try to convince a patient that you can use Chantix, you can use Wellbutrin. But I know inside me that these things are not working. So I feel kind of embarrassed sometimes. Because the patient's expected to—yes, we have something that can help you quit smoking. But the way they take it is, 'you know, I take this medicine like my blood pressure's 180, I take it, it goes down. I smoke, I take the medicine, I don't smoke'. It doesn't work that way. So it's very difficult to convince patients when you're not yourself convinced that these medicines work."

Providers also felt that there was not adequate reimbursement, considering the amount of time it took to help a

patient quit: "I think it's a tremendous investment of time. Parenthetically, not reimbursable. We don't get paid for referring them and the time that it takes in order to convince somebody to quit smoking."

How Do Physicians Prioritize Who to Treat?

In light of the many barriers to treating tobacco dependence, there are a variety of factors that influence how physicians prioritize which patients to treat. For many, they are most likely to treat those who are already suffering from a smoking-related disease: "If it is someone in their 40s with hypertension, COPD, and other issues, I'll say, 'we really need to talk about this. You don't want you to have a stroke or a heart attack.' I try to put more effort into getting them help, which is a lot of my patients. But if I have 30 year old with no problems, all I'll say is don't want to see them have an issue later," though they realized this was not necessarily a best practice: "If I can translate what they're coming in with to being related to smoking, then it's easier. But I guess I should be saying, you shouldn't do it ever."

Physicians have general awareness of the shift from heavy to light and non-daily smoking. They differentiate between these patterns; however, the effort a doctor makes may depend on their perception of the urgency of the patient's need to quit. Patients who have conditions caused or exacerbated by smoking are considered the most urgent. Those who smoke more and are likely to endure future consequences or are showing symptoms of more serious problems are also a priority. Those who smoke less are deemed less urgent: "The goal is to get them to quit entirely, but I'm not going to put the same effort into those who rarely smoke to those who smoke a lot."

Likewise, young patients who report "social smoking" did not register as requiring treatment: "Most social smokers are young and do it when they drink. Unless they are coming in for something related to their smoking, I don't really press it."

However, for several physicians, younger patients, seemed more likely to successfully quit: "I spend more time with them [younger smokers]; there is more of a chance of success."

Patients who smoked less were also seen by some physicians as having better chances of success: "The only reason I might is to stratify them, their history. I would say 'Are you smoking?' If I want them to stop I would say 'You're only light smoking; this will be easier.' But I want to know how likely they are, have accumulated enough cigarettes to be screened for lung cancer. To be screened for COPD in a more serious way. But other than that, smokers that have to smoke, I'm gonna try to get them to stop. Figuring the last cigarette is the one that will do some harm."

Opinions and misconceptions influence how physicians approach treating tobacco dependence. Many felt patients

Kilgore et al 5

lacked interest or motivation to quit, and therefore it was not worth addressing the issue in depth: "If a patient doesn't want to quit there is absolutely nothing that I can say or do that is going to change their mind; the patient needs to want it."

The Role of Public Health

Physicians were asked broadly about their experiences with DOHMH, including use of DOHMH resources and their knowledge and opinions of population-level tobacco control interventions. They reported utilizing DOHMH resources by directing patients to call 311 (NYC's nonemergency hotline linking residents to cessation services) and were aware of DOHMH programs offering counseling and nicotine replacement therapy: "311 is crucial—if they ask me what I recommend, I tell them to call 311. In our discharge paper it tells them if they are interested to call 311 and I circle it." Providers were also familiar with and supportive of NYC's population-level tobacco control efforts. Physicians' recall of DOHMH graphic smoking cessation advertisements was high across groups. Among those aware of the ads, there was unanimous support of the hardhitting tone: "The more graphic they are, the more they scare, which is a big deterrent." Some participants specifically mentioned the benefit of showing consequences other than cancer: "I think the commercials are great. I think patients are becoming more and more aware of some of the consequences other than just cancer."

Discussion

Four primary themes emerged from the data.

- (1) Physicians understand risks of smoking, as well as the basics of treating patients who smoke with counseling and recommending/prescribing medications;
- Not all physicians, particularly specialists, treat smoking; those who do often do not follow clinical guidelines;
- Physicians prioritize who they choose to treat based upon a number of subjective and objective criteria;
- (4) Physicians see the public health or health department role as separate from the clinical environment, despite their awareness and support of populationlevel interventions to reduce smoking.

In this study, physicians across all specialties identified a variety of barriers to treating tobacco dependence. While there was a shared view across specialties that PCPs are responsible for treatment of tobacco dependence, PCPs reported feeling insufficiently trained with behavioral change methods despite a majority reporting they had some previous training. They also reported not having enough time to treat their patients and receive financial reimbursement. Further,

physicians expressed low confidence in the medications used for cessation treatment, which are designed to minimize symptoms of withdrawal and mood disturbances, not treat the underlying causes of tobacco dependence. Some providers chose to triage treatment towards those who are the sickest, who smoke more, who are most at risk of smoking-related diseases, or who are most likely to quit. As such, physicians may be less likely to treat patients who have light and non-daily smoking patterns or provide counseling for those not ready to quit.

How physicians approach the treatment of tobacco dependence has likely been influenced by the structure of the medical field itself, which has traditionally drawn a line between behavioral and physical health, not only in the way physicians are trained, but also in the way care is delivered. Primary care treatment and reimbursement has been more focused on acute care management, such that scheduling more visits for preventive care and increasing time with patients during visits to provide behavioral counseling is not necessarily institutionally or financially sustainable. While this study was not designed to assess the connections among structural, institutional and specialty care factors, and self-reported physician behavior, physician perspectives in this study do provide insight into why they may deviate from best practices. By creating their own algorithms of patient risk within the parameters of their professional time and fiscal responsibility, physicians are addressing smoking in their patient population to the best of their ability, even if their training is not comprehensive or if there is limited flexibility in their clinical care systems. However, given their low confidence in the efficacy of cessation medications, physicians may be prescribing medications in a suboptimal manner and continue to perpetuate their own beliefs that these medications are ineffective.

From a prior study, patients who smoke report that they expect providers to address smoking at every visit, that smoking cessation counseling is respectful of the patients' experiences, and that providers are encouraging, supportive, and non-judgmental. However, providers in this study reported a lack of training and time to optimally counsel patients. This finding was echoed in a 2011 study that identified 6 themes as barriers to counseling patients about cessation: lack of time, inadequate cessation clinical skills on the part of providers, inadequate resources, patient resistance to change, patient non-compliance, and language and cultural barriers.

Ensuring all health care providers provide standard screening, assessment, treatment, and follow up can help increase the number of people who quit each year. Creating or promoting online and in-person cessation training to providers and offering Continuing Medical Education credits would establish professional incentives for providers who have never had training to receive it, and for those who have, to supplement their training with up to date treatment

guidance. These trainings should include statistics on the changes in demographic and consumption patterns among the smoking population, how to best identify and document smoking intensity, talking points and communication techniques that can be used during counseling sessions, and suggested workflows, including routine monitoring of provider and practice-level treatment delivery.

Since many physicians did not see DOHMH as a resource for training and information, it is recommended that public health organizations interested in serving this function for the provider community brand themselves accordingly or collaborate closely with partners who are seen as a resource. Professional medical societies and organizations, as well as large hospital and university systems, are potential partners in this effort.

Academic, public health, and advocacy organizations can also influence factors outside of the clinical setting that support comprehensive cessation treatment. Such organizations can encourage public and private health plans, and state officials overseeing such plans, to ensure medication coverage is broad and minimally cost-prohibitive, and that mechanisms to improve reimbursement for cessation interventions are implemented.

Limitations

This study has several limitations. First, specialist groups included a variety of areas of practice, making common experiences among participants limited. Second, we did not include non-physician providers who may also be critical to addressing smoking.¹⁷ Third, by design, we only explored provider perspectives on challenges specific to following clinical practice guidelines. We did not investigate their perspective on all the challenges that exist for people to quit smoking, including the contribution various social determinants of health have on the environments to which patients are exposed and their access to local resources to support their quit attempts. Finally, we asked providers if they had formal training but did not specifically define what "formal" meant. Thus, while the majority reported some type of training, this does not necessarily mean they all had comprehensive, structured training and thus findings needs to be interpreted in that context.

Conclusion

Components of efficacious tobacco dependence treatment in the clinical setting are well-established, yet we found that physicians face challenges in translating recommendations into practice in real-world settings. This study found that there are several barriers preventing patients who smoke, including those with a light or non-daily smoking pattern, from receiving optimal treatment: limited time during the clinical encounter, physician knowledge and beliefs, and physician ownership (or lack thereof) of the treatment of

tobacco dependence. In addition to the larger policy efforts related to legislation and taxes, public health organizations can assist physicians via: (1) population-level interventions, such as media campaigns and quit line services; (2) bolstering education and training of clinicians through Continuing Medical Education; (3) providing technical assistance on adopting system changes to enhance treatment delivery; (4) partnering with professional organizations and medical and educational systems; and by (5) advocating for insurance policies that are comprehensive and provide adequate resources to help patients quit for good.

Acknowledgment

The authors are grateful for the review, feedback and technical contributions of our colleagues in the Bureau of Chronic Disease Prevention at the New York City Department of Health and Mental Hygiene, related to the administration of this study and manuscript completion. We thank Shannon Farley, DrPH, former Director of Research and Evaluation, for her thoughtful oversight of the project; Sarah Perl, MPH, Behavioral Health Integration Educator, for contributing to important discussions and interpretations of our study outcomes; John Jasek, MPA, current Director of Research and Evaluation, for his statistical and methodological contributions, and Achala Talati, DO, MS, MPH, Director of Tobacco Policy and Programs, for her thoughtful review of the completed manuscript. We would also like to thank our consultants, Lori R. Holmes and Jonathan Hollenberg of HawkPartners, who coordinated and conducted the focus groups on our behalf.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Funding for this research was provided by the New York City Department of Health and Mental Hygiene.

ORCID iD

Elizabeth Needham Waddell https://orcid.org/0000-0002-0701-1939

References

- US Department of Health and Human Services. The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General. Atlanta, GA: US 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.
- New York City Department of Health and Mental Hygiene. Community Health Survey 2002, 2017. Internal analysis.
- Inoue-Choi M, Liao LM, Reyes-Guzman C, Hartge P, Caporaso N, Freedman ND. Association of long-term, lowintensity smoking with all-cause and cause-specific mortal-

Kilgore et al 7

- ity in the national institutes of health-AARP diet and health study. *JAMA Intern Med.* 2017;177:87-95.
- Hackshaw A, Morris JK, Boniface S, Tang JL, Milenkovic D. Low cigarette consumption and risk of coronary heart disease and stroke: meta-analysis of 141 cohort studies in 55 study reports. *BMJ*. 2018;360:j5855.
- 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;163:622-634.
- 6. U.S. Preventive Services Task Force. Evidence summary: tobacco smoking cessation in adults, including pregnant women: behavioral and pharmacotherapy interventions. https://www.uspreventiveservicestaskforce.org/Page/Document/behavioral-counseling-and-pharmacotherapy-interventionsfor-/tobacco-use-in-adults-and-pregnant-women-counseling-and-interventions1. Published October 2015. Accessed November 14, 2019.
- Stead LF, Koilpillai P, Fanshawe TR, Lancaster T. Combined pharmacotherapy and behavioural interventions for smoking cessation. *Cochrane Database Syst Rev.* 2016;3:CD008286.
- 8. Kahende J, Malarcher A, England L, et al. Utilization of smoking cessation medication benefits among medicaid fee-for-service enrollees 1999-2008. *PLoS One*. 2017;12:e0170381.
- Kruger J, O'Halloran A, Rosenthal AC, Babb SD, Fiore MC. Receipt of evidence-based brief cessation interventions

- by health professionals and use of cessation assisted treatments among current adult cigarette-only smokers: National Adult Tobacco Survey, 2009-2010. *BMC Public Health*. 2016;16:141.
- New York City Department of Health and Mental Hygiene. Community Health Survey 2015. Internal analysis.
- New York City Department of Health and Mental Hygiene. Primary care information project. https://www1.nyc.gov/site/doh/providers/resources/primary-care-information-project. page. Accessed October 23, 2019.
- Bradley EH, Curry LA, Devers KJ. Qualitative data analysis for health services research: developing taxonomy, themes, and theory. *Health Serv Res.* 2007;42:1758-1772.
- Miles MB, Huberman AM. Qualitative Data Analysis: An Expanded Sourcebook. 2nd ed. Thousand Oaks, CA: Sage; 1994.
- Strauss A, Corbin J. Basics of Qualitative Research. Thousand Oaks, CA: Sage; 1998.
- Halladay JR, Vu M, Ripley-Moffitt C, Gupta SK, O'Meara C, Goldstein AO. Patient perspectives on tobacco use treatment in primary care. *Prev Chronic Dis*. 2015;12:E14.
- Caplan L, Stout C, Bluementhal DS. Training physicians to do office-based smoking cessation increases adherence to PHS guidelines. *J Community Health*. 2011;36:238-243.
- Braun BL, Fowles JB, Solberg LI, Kind EA, Lando H, Pine D. Smoking-related attitudes and clinical practices of medical personnel in Minnesota. *Am J Prev Med*. 2004;27:316-322.