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Clinician Telephone Training to Reduce Family Tobacco Use: Analysis of Transcribed Recordings

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Abstract

Background—Family tobacco use and exposure are significant threats to the health of children and their families. However, few pediatric clinicians address family tobacco use and exposure in a routine and effective manner. The Clinical Effort Against Secondhand Smoke Exposure (CEASE) intervention was developed to tackle this gap between clinical need and clinical practice.

Objective—To review the main considerations and questions that clinicians and office staff expressed during telephone training to participate in CEASE.

Methods—This study was conducted in pediatric practices in 5 US states. Practices were recruited by the American Academy of Pediatrics (10 intervention, 10 control). Ten training calls were recorded and transcribed. The data was then coded inductively based on themes found in the transcripts.

Results—The data revealed that clinicians and staff were concerned about prescribing, dosing, and insurance coverage of nicotine replacement therapy; motivation for and methods to help families become tobacco-free; and the impact of the intervention on practice operations.

Conclusion—While the majority of clinicians and office staff were interested and enthusiastic about helping families become tobacco-free, they expressed concerns that could threaten implementation of family tobacco control strategies.

The devastating health consequences of smoking and exposure to tobacco smoke have been well demonstrated. As declared in the 2006 Surgeon General's Report, there is no safe level of exposure to tobacco [1]. Children are especially at risk for exposure to toxins and toxicants in tobacco smoke [1,2]. Exposure to tobacco smoke is associated with higher levels of asthma, increased risk of sudden infant death syndrome, increased rates of upper respiratory infections, and behavioral issues [3–5]. Recent research shows that over 70% of children in the United States have some level of exposure to tobacco smoke [6]; parents and other family members are commonly the cause of this exposure, especially in young

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children. Children and parents benefit when parents stop smoking; parent life expectancy increases by an average of 7 years [7], the risk of tobacco-related poor pregnancy outcomes is reduced, and future children are spared from exposure to tobacco smoke [8].

There is a growing movement to address tobacco use and exposure in the pediatric office setting; the 2015 American Academy of Pediatrics tobacco policy statement *Clinical Practice Policy to Protect Children From Tobacco, Nicotine, and Tobacco Smoke* recommends that pediatricians ask about children's exposure to tobacco and address parental tobacco use by implementing office-wide systems to deliver advice, counseling, referral to cessation resources, and smoking cessation medication to smokers [9].

Despite significant risks of tobacco smoke exposure to children, we found in a previous paper that only 3.5% of parents in control practices received any tobacco control assistance [10]. Through a systematic and ongoing line of research, the Clinical Effort Against Secondhand Smoke Exposure (CEASE) intervention was developed to tackle this gap between clinical need and clinical practice. The CEASE intervention has been successfully shown to train and equip pediatric offices from a distance to address family tobacco use within existing office systems [10–14]. An enhanced CEASE intervention is undergoing testing in pediatric practices in 5 US states.

The CEASE intervention works with pediatric primary care offices on strategies to promote routine and effective family-centered tobacco control by addressing parental smoking and establishing smoke-free home and car rules. Based on national guidelines and extensive data obtained in previous pilot testing [12,14–16], elements of the CEASE intervention have been designed to be adapted to individual practices' staffing, resources, and physical configuration. The main elements of the intervention are identifying tobacco users and children exposed to tobacco smoke through the use of a paper or an electronic tablet screening tool, assisting smokers in setting a quit date, establishing rules for smoke-free homes and cars, prescribing nicotine replacement therapy (NRT) to help smokers cut down or quit [17,18], referring smokers to tobacco quitlines and/or the SmokeFreeTXT program [19–25], and following up with tobacco users. Clinicians and staff are trained in the adoption, implementation, and maintenance of family-centered tobacco control strategies with the goal of embedding the elements of CEASE intervention into routine practice beyond the training and/or research study periods. The CEASE training was designed to meet the needs of pediatric offices, be time- and cost-effective, and be implemented through distance learning strategies to save both trainer and pediatric office staff resources. The training approach consists of a number of evidence-based strategies. As depicted in the Table, the training involves multiple modalities, including videos, reference materials, online computer education modules, and telephone training calls.

One of the more innovative aspects of CEASE has been the use of training calls. In studies of CEASE, the peer-to-peer call was conducted by the principal investigator with the project leader at the practice using a train-the-trainer model. After the project leader was trained through the peer-to-peer call, the project leader then led the whole office training call, with the support of CEASE staff by phone. The training calls worked in conjunction with the other aspects of the training, as shown in the Table. The training calls for the practices

provided a valuable research opportunity. We examined the concerns and issues that clinicians and office staff had about implementing an office-wide tobacco control program through a qualitative analysis of the call transcripts. This paper outlines the main considerations and questions that clinicians and office staff expressed during the training calls. Understanding the points of view of clinicians and staff will help researchers and clinical educators strengthen the design of tobacco control interventions.

METHODS

Study Aims

The data for this paper were collected as part of a larger mixed-methods controlled trial. The overarching aims of the trial were to study implementation and sustainability of tobacco-control services delivered at the clinic level, to facilitate behavior change among parents and evaluate cost-per-quit among parents who smoke, and to study systems changes and the processes that affect them at the practice level. The study was conducted in 5 intervention and 5 control pediatric primary care practices in 5 states; this paper reports on data collected in intervention practices and focuses on understanding the systems changes and processes that are instituted when implementing a tobacco control program at the clinician and practice level.

Practice Recruitment and Eligibility

Practices were recruited through the American Academy of Pediatrics using direct emails, newsletter/listserv articles, phone calls to members, and in-person recruitment at national meetings. Eligible practices were located in a non-hospital-based setting, had an average patient flow of at least 50 patients per day, used an electronic medical record (EMR) system, and were matched in each state based on practice size and smoking rate. Interested practices also had to be willing to host a research assistant to collect exit interview data from parents. Practices were excluded if they took part in previous CEASE studies or were actively enrolling participants into other tobacco control research studies. Based on these criteria, 18 eligible practices from Indiana, North Carolina, Ohio, Tennessee, Michigan, and Virginia agreed to participate in the study. Of the 6 states, one state was chosen as a replacement state. Five practices from the remaining states were assigned to the intervention group, 5 to the control group, and 5 were assigned to the replacement group in case an intervention or control practice in their state withdrew from the study. Each intervention practice participated in a peer-to-peer training call and a whole office training call. Data analyzed in this paper was collected from all 10 intervention practice training calls.

Training Calls Data Collection

The peer-to-peer and whole office training calls were recorded and transcribed. Permission to record the calls was requested by the trainer (the principal investigator of the study) and given verbally by each person being trained. The training call recordings were then transcribed verbatim by a commercial service; the transcriptions were spot-checked for accuracy.

The transcripts were first read closely by the first author (BHW), then coded inductively into relevant themes that emerged from the calls. The inductive coding was guided by the questions and concerns that the clinicians raised during the training, as well as the ways in which the trainer addressed these concerns and tailored the training to the needs and interests of the pediatric clinicians [26]. The coding was reviewed and confirmed by the other study team members.

After the data were coded into themes, the coded data were analyzed by the first author using qualitative description. Qualitative description is a method of analyzing coded qualitative data by looking at the words and meanings expressed by respondents [27]. Through this method of analysis, we were able to understand what concerns the clinicians and staff voiced about aspects of the CEASE intervention.

Ethics

The study was approved institutional review boards at Massachusetts General Hospital, the AAP, and the health care practices that required local IRB approval. The quotes used in this paper have been anonymized and cleaned to remove any identifying information, such as location and names.

Peer-to-Peer Training Calls

The peer-to-peer training calls were conducted after training and study materials arrived. The project leader (a pediatrician in the practice who was interested in spearheading the CEASE intervention) was asked to watch the training video. Using an evidence-based, previously developed call script [28], the principal investigator trained the project leader in key aspects of addressing family tobacco use and exposure, such as using an electronic tablet screener survey to identify family members who smoke, exploring techniques for prescribing or recommending NRT, and identifying ways to connect family members to free tobacco cessation counseling and support services. On occasion, other staff from the pediatric office (eg, a nurse or office manager) joined the call.

The principal investigator presented information, clarified points in the video, explained the materials, and asked questions and elicited relevant experiences from the project leader. In addition to teaching the project leader about the tobacco control strategies used in CEASE, the peer-to-peer calls prepared the project leader to train the rest of their own practice clinicians and staff in the CEASE intervention.

Whole Office Training Calls

Each practice's local project leader led the whole office training calls, but CEASE study staff were on the call to introduce themselves to office staff, answer any questions that staff may have raised that the project leader could not answer, give information about data collection, and to generally support the implementation of the CEASE intervention and research program. During this call, the project leader watched the video with the group and tailored the training for his or her practice, focusing on issues of relevance for patients and staff.

Training Calls as Research Data

As many practices struggle with research burden [29], finding innovative and unobtrusive methods of collecting data is especially useful for research teams and participating practices. During both calls, clinicians and staff were asked open-ended questions to learn about their concerns regarding intervention implementation, share their own experiences with tobacco and tobacco control, and explore practice-specific methods to address family smoking. CEASE staff used this opportunity to help practices tailor the intervention to the local setting, such as by offering quitline enrollment sheets in another language. Clinician and staff answers to open-ended questions provided qualitative data for this manuscript.

RESULTS AND DISCUSSION

The research team used training call data to explore clinician and staff concerns and desires related to family-centered tobacco control. The most common themes were: (1) prescribing, dosing, and insurance coverage of NRT, (2) motivation for and methods to help families become tobacco-free, and (3) the impact of the CEASE intervention on the day-to-day operations of the practice.

Nicotine Replacement Therapy

Prescribing or recommending NRT is one of the best ways to help families become tobacco-free and is a crucial component of the CEASE intervention [30–32]. Through the telephone trainings, clinicians and staff were trained to prescribe NRT using pre-printed prescription sheets, presented information about the effectiveness of NRT for smoking cessation, and referred to an information sheet on NRT to answer other questions as needed.

During the calls, it became clear that the pediatric clinicians were interested in prescribing NRT to help smokers quit, but lacked the skills and knowledge to do so:

I'm writing all this down [about NRT], because I don't know any of this. (IN peer-to-peer)

Is 4 mg the strongest the gum comes in? (NC whole office)

This lack of knowledge may be a barrier to prescribing NRT in the pediatric setting. A national survey revealed that while smoking parents would accept prescriptions for NRT from their child's doctor, very few received a prescription [33]. The calls provided an opportunity to have clinicians' questions about NRT be answered by a pediatric tobacco control expert.

Clinicians were interested in helping parents stop smoking with medication, but were worried about access to medication; one of the most common questions voiced was not about how or why to prescribe NRT but how to help low-income parents get NRT for free or low-cost.

Some people—they don't have insurance, so, how much it costs, they need to know that. (TN peer-to-peer)

I just know I've got a bunch ... Obamacare doesn't work down here, so—I've still got families who don't have any insurance, and you're like, "Oh, I was hoping you could get something," and they're like, "Well, we can't." I have a fair number of kids who—are on some type of insurance, but the parents don't have any coverage for NRT. (VA peer-to-peer)

While NRT is covered under the Affordable Care Act, many states have not expanded their Medicaid coverage [34]; this leaves many low-income families without access to health insurance or to free or low-cost NRT. While NRT remains one of the best and most common smoking cessation tools [35] there was no way to reassure practices that parents would be able to obtain the prescribed NRT without guaranteed coverage. In a previous study, the cost of NRT was seen by smokers as a barrier to using NRT to quit smoking [32]. Clinicians' concerns about the cost of NRT reveal an understanding of the needs and issues relevant to their patient population.

Motivation for and Methods to Help Families Become Tobacco-Free

Clinicians and office staff were motivated to help families become tobacco-free and were interested in various ways to do so. The motivation and interest were personal, clinical, and organizational, relating to the ways in which care in the pediatric office could be altered to address tobacco in a more systematic way.

Motivation—The interest in smoking cessation stems from the desire to protect children from the harmful effects tobacco smoke and to prevent children themselves from taking up smoking:

We'd always talked about the smoking, and the parents finally quit. Probably not like I helped them—I just had been harping on them—but by that point the boy was smoking. When he was little he was like, "Oh, that's nasty. I can't believe my parents smoke." Then by the time he was 14–15 and the parents actually did manage to quit, he was smoking, and I was like, "Ugh, really?" (VA peer-to-peer)

I totally understand the dire need for this project, in both the tobacco in the households, as well as the teenagers smoking. I heard one statistic, that one of our high schools had 80% of children using tobacco products... And that's on my watch... I understand and I share the same passion that you do, for personal reasons, as well as reasons to help the whole community. (NC peer-to-peer)

Pediatricians saw themselves as responsible for protecting children's health through reducing their tobacco smoke exposure, for working to prevent teen smoking, and for the overall health of their communities. Helping prevent childhood exposure to tobacco smoke and teen smoking initiation are crucial tasks for pediatricians; the 2015 AAP tobacco policy statement strongly recommends that pediatric offices include tobacco use prevention messages when talking to children and teens to help prevent smoking initiation, as well as helping families establish smoking bans for homes and cars [36]. By participating in the CEASE telephone trainings, clinicians and office staff were learning skills and tools to help them act on their motivation to protect families from the harms of tobacco.

Strategies—Pediatricians and office staff were interested in learning specific strategies and tools to help parents stop smoking. Practices wanted to know how and when to set a quit date with families, how to use services to help families become smoke-free, and how to tailor assistance to specific populations.

Yeah, we're wondering about other languages, because we do have a large Hispanic patient population and a sizable group of folks that come from Saudi Arabia, and I know that some of them do smoke. (TN peer-to-peer)

Set[ting] a quit date for the patient —so how long we want to set the date? 6 months, 3 months, 1 year, 2 years, what? (TN peer-to-peer)

If you have a mom who lives with grandma and grandpa, the mom may not smoke but grandma and grandpa smoke, but they still live in that home... But anyone who comes in, we're going to help. Does that sound right? (VA peer-to-peer)

By participating in the study, the clinicians and office staff were actively seeking to improve their knowledge of tobacco-related issues; past research has shown that pediatric residents saw lack of training in tobacco control as a key reason for inconsistent tobacco control outreach and intervention [37]. The training calls were an opportunity to gain information more specifically related to the pediatric practice's population and office setting, building upon the other CEASE training materials. The training calls were also a chance for the CEASE research team to adapt strategies and tools to the practices, for example by providing materials that met the practices' needs.

Impact of Intervention on Day-To-Day Operations

The training calls revealed that integrating CEASE into office workflows was a major concern. Integrating preventive services into routine office practice is a frequent concern of primary care providers [38–41]. These concerns about office flow reflect worries about financing [42] and benchmarking [43–45].

I think they're going to have some of the same questions [that I initially had] in terms of how this might work with workflow. But as we've talked through all of this, I think we can make it work, and make it just sort of incorporated as part of our everyday questions that we ask. And it shouldn't really slow things down. And I think that'll be the main thing the providers would be focusing on is, how's this going to impact me and all the other things I have to do in the course of a visit? This [phone call] answers a lot of questions I had in terms of that. (IN peer-to-peer)

As wait time was a performance measure for many of the practices, the clinicians and staff were hesitant to add any activities to check-in that might increase wait time.

I know, so especially, we're trying to do a care team right now... don't want them to spend too much time in the waiting room. (OH whole office)

During the calls, clinicians and office staff were asked to reflect on their practices and discuss ways that their practice would implement the CEASE intervention. This moment of reflection is a benefit of research participation, as it allows practices to improve the care they provide [46]. The calls allowed for on-the-spot tailoring of the intervention to meet the

specific needs of the practice, an opportunity for the research staff and practice to work together to make the intervention fit their particular office situation and flow. Data collected from the training calls were also reviewed during the CEASE implementation process to support practices with specific concerns.

Strengths and Limitations—As these data were collected during training calls and subject to social desirability bias, the concerns raised may not be an exhaustive list of all concerns that clinicians and office staff had. However, the concerns that were raised by clinicians became a natural and essential part of the training process. As the practices' initial concerns were identified early in the study, it was possible to address these concerns throughout the early implementation phases of CEASE. Transcribing calls and analyzing training call data as quickly as possible during the training phases of an intervention could prove beneficial for strengthening the implementation.

Dedicating the extra time and effort to record the training calls as a source of data formalized and strengthened the implementation process. By recording training calls, the study team was able to document the practices' concerns and share them among the research team, including those who were not on training calls. This effort was a significant source of quality improvement data for the research team and helped ensure that we were responsive to the articulated needs of clinicians and practices.

CONCLUSION

The training call data revealed both the concerns as well as the interests of child health care clinicians in regard to addressing family tobacco use. While the majority of clinicians and office staff were interested and enthusiastic about helping families become tobacco free, they expressed concerns that could threaten full implementation of family tobacco control strategies. These concerns and interests related to the coverage and affordability of NRT, integrating tobacco control strategies into the practice flow, and learning strategies to address family-wide tobacco use, such as helping grandparents quit smoking or addressing tobacco use with those who were not native English speakers. The concerns and interests of clinicians and office staff revealed that they were genuinely interested in learning ways to tailor strategies to address tobacco use for their practices and patient populations. By recording the training calls, the study team was better able to help them tailor the intervention to their practice, both during the calls and during subsequent implementation by providing new materials and additional information on subjects of concern to the practice. Carefully documenting training calls with health care practices are an ideal opportunity to collect information on issues that may impact full implementation of future interventions.

References

1. U.S. Department of Health and Human Services. The health consequences of involuntary tobacco smoke: a report of the Surgeon General. 2006
2. Rauh VA, Whyatt RM, Garfinkel R, et al. Developmental effects of exposure to environmental tobacco smoke and material hardship among inner-city children. *Neurotoxicol Teratol.* 2004; 26:373–85. [PubMed: 15113599]

3. Polanska K, Hanke W, Ronchetti R, et al. Environmental tobacco smoke exposure and children's health. *Acta Paediatr Suppl.* 2006; 95:86–92. [PubMed: 17000575]
4. American Academy of Pediatrics, Committee on Substance Abuse. Tobacco's toll: implications for the pediatrician. *Pediatrics.* 2001; 107:794–8. [PubMed: 11335763]
5. U.S. Department of Health and Human Services. Excerpts from the health consequences of involuntary exposure to tobacco smoke: a report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2007. Children and secondhand smoke exposure.
6. Wilson KM, Klein JD, Blumkin AK, et al. Tobacco-smoke exposure in children who live in multiunit housing. *Pediatrics.* 2011; 127:85–92. [PubMed: 21149434]
7. Taylor SM, Ross NA, Cummings KM, et al. Community intervention trial for smoking cessation (COMMIT): changes in community attitudes toward cigarette smoking. *Health Educ Res.* 1998; 13:109–22. [PubMed: 10178333]
8. Winickoff JP, Healey EA, Regan S, et al. Using the postpartum hospital stay to address mothers' and fathers' smoking: the NEWS study. *Pediatrics.* 2010; 125:518–25. [PubMed: 20123776]
9. American Academy of Pediatrics, Section on Tobacco Control. Policy statement: Clinical practice policy to protect children from tobacco, nicotine, and tobacco smoke. *Pediatrics.* 2015; 136:1008–17. [PubMed: 26504137]
10. Winickoff JP, Nabi-Burza E, Chang Y, et al. Implementation of a parental tobacco control intervention in pediatric practice. *Pediatrics.* 2013; 132:109–17. [PubMed: 23796741]
11. Ossip DJ, Chang Y, Nabi-Burza E, et al. Strict smoke-free home policies among smoking parents in pediatric settings. *Acad Pediatr.* 2013; 13:517–23. [PubMed: 24238677]
12. Winickoff JP, Park ER, Hipple BJ, et al. Clinical effort against secondhand smoke exposure: development of framework and intervention. *Pediatrics.* 2008; 122:e363–e75. [PubMed: 18676523]
13. Nabi-Burza E, Winickoff JP, Finch S, Regan S. Triple tobacco screen: opportunity to help families become smokefree. *Am J Prev Med.* 2013; 45:728–31. [PubMed: 24237914]
14. Winickoff, JP. Pediatrician-led program increases provision of smoking cessation support, boosts quit rates among parents. *Innovations in Medicine.* 2011. Accessed 24 Nov 2015 at <https://innovations.ahrq.gov/profiles/pediatrician-led-program-increases-provision-smoking-cessation-support-boosts-quit-rates>
15. Fiore, MC., Bailey, WC., Cohen, SJ. Treating tobacco use and dependence. Rockville, MD: US Department of Health and Human Services, Public Health Service; 2000.
16. Winickoff JP, Nabi-Burza E, Chang Y, et al. Sustainability of a parental tobacco control intervention in pediatric practice. *Pediatrics.* 2014; 134:933–41. [PubMed: 25332492]
17. Moore D, Aveyard P, Connock M, et al. Effectiveness and safety of nicotine replacement therapy assisted reduction to stop smoking: systematic review and meta-analysis. *BMJ.* 2009; 338:b1024. [PubMed: 19342408]
18. Aveyard P, Wang D, Connock M, et al. Assessing the outcomes of prolonged cessation-induction and aid-to-cessation trials: floating prolonged abstinence. *Nicotine Tob Res.* 2009; 11:475–80. [PubMed: 19346506]
19. Asfar T, Ebbert JO, Klesges RC, Relyea GE. Do smoking reduction interventions promote cessation in smokers not ready to quit? *Addict Behav.* 2011; 36:764–8. [PubMed: 21420791]
20. Curry SJ, Grothaus LC, McAfee T, Pabiniak C. Use and cost effectiveness of smoking-cessation services under four insurance plans in a health maintenance organization. *N Engl J Med.* 1998; 339:673–9. [PubMed: 9725926]
21. Abroms LC, Ahuja M, Kodl Y, et al. Text2Quit: Results from a pilot test of a personalized, interactive mobile health smoking cessation program. *J Health Commun.* 2012; 17(Suppl):1, 44–53.
22. Curry SJ, Ludman EJ, Graham E, et al. Pediatric-based smoking cessation intervention for low-income women: a randomized trial. *Arch Pediatr Adolesc Med.* 2003; 157:295–302. [PubMed: 12622686]

23. Orleans CT, Schoenbach VJ, Wagner EH. Self-help quit smoking interventions: effects of self-help materials, social support materials, social support instructions and telephone counseling. *J Consult Clin Psychol.* 1991; 59:439–48. [PubMed: 2071729]
24. An LC, Zhu SH, Nelson DB, et al. Benefits of telephone care over primary care for smoking cessation: a randomized trial. *Arch Intern Med.* 2006; 166:536–42. [PubMed: 16534040]
25. Warner DO, Klesges RC, Dale LC, et al. Clinician-delivered intervention to facilitate tobacco quitline use by surgical patients. *Anesthesiology.* 2011; 114:847–55. [PubMed: 21317630]
26. Creswell, JW. *Qualitative inquiry and research design: choosing among five approaches.* 2. Thousand Oaks, CA: Sage; 2007.
27. Sandelowski M. Focus on research methods: whatever happened to qualitative description. *Res Nurs Health.* 2000; 23:334–40. [PubMed: 10940958]
28. Winickoff JP, Hipple B, Drehmer J, et al. The clinical effort against secondhand smoke exposure (CEASE) intervention: A decade of lessons learned. *J Clin Outcomes Manag.* 2012; 19:414–9. [PubMed: 24379645]
29. Clark T, Sinclair R. The costs and benefits of acting as a research site. *Evid Policy A J Res Debate Pract.* 2008; 4:105–19.
30. Zhu S, Melcer T, Sun J. Smoking cessation with and without assistance: a population-based analysis. *Am J Prev Med.* 2000; 18:305–11. [PubMed: 10788733]
31. Gilpin EA, Messer K, Pierce JP. Population effectiveness of pharmaceutical aids for smoking cessation: what is associated with increased success? *Nicotine Tob Res.* 2006; 8:661–9. [PubMed: 17008193]
32. Cokkinides VE, Ward E, Jemal A, Thun MJ. Under-use of smoking-cessation treatments: results from the National Health Interview Survey, 2000. *Am J Prev Med.* 2005; 28:119–22. [PubMed: 15626567]
33. Winickoff JP, Tanski SE, McMillen RC, et al. Child health care clinicians' use of medications to help parents quit smoking: a national parent survey. *Pediatrics.* 2005; 115:1013–7. [PubMed: 15805379]
34. Kaiser Family Foundation. Status of state action on the medicaid expansion decision. Available at <http://kff.org/health-reform/state-indicator/state-activity-around-expanding-med-icaid-under-the-affordable-care-act/>
35. U.S. Department of Health and Human Services. *The health consequences of smoking- 50 years of progress: a report of the Surgeon General.* 2014
36. American Academy of Pediatrics, Section on Tobacco Control. Policy statement: Public policy to protect children from tobacco, nicotine, and tobacco smoke. *Pediatrics.* 2015; 136:998–1007. [PubMed: 26504133]
37. Collins BN, Levin KP, Bryant-Stephens T. Pediatricians' practices and attitudes about environmental tobacco smoke and parental smoking. *J Pediatr.* 2007; 150:547–52. [PubMed: 17452234]
38. Leininger LS, Finn L, Dickey L, et al. An office system for organizing preventive services: a report by the American Cancer Society Advisory Group on Preventive Health Care Reminder Systems. *Arch Fam Med.* 1996; 5:108–15. [PubMed: 8601207]
39. Swartz SH, Hays JT. Office-based intervention for tobacco dependence. *Med Clin North Am.* 2004; 88:1623–41. [PubMed: 15464117]
40. Bordley WC, Margolis PA, Stuart J, et al. Improving preventive service delivery through office systems. *Pediatrics.* 2001; 108:E41. [PubMed: 11533359]
41. Schoen C, Osborn R, Huynh PT, et al. On the front lines of care: primary care doctors' office systems, experiences, and views in seven countries. *Health Aff (Millwood).* 25:w555–w71. [PubMed: 17102164]
42. Rigotti NA, Quinn VP, Stevens VJ, et al. Tobacco-control policies in 11 leading managed care organizations: progress and challenges. *Eff Clin Pract.* 2002; 5:130–6. [PubMed: 12088292]
43. Curry SJ. Organizational interventions to encourage guideline implementation. *Chest.* 2000; 118(2 Suppl):40S–6S. [PubMed: 10939998]

44. Berg M, Meijerink Y, Gras M, et al. Feasibility first: developing public performance indicators on patient safety and clinical effectiveness for Dutch hospitals. *Health Policy*. 2005; 75:59–73. [PubMed: 16298229]
45. Gandhi TK, Puopolo aL, Dasse P, et al. Obstacles to collaborative quality improvement: the case of ambulatory general medical care. *Int J Qual Health Care*. 2000; 12:115–23. [PubMed: 10830668]
46. Mol A. Proving or improving: on health care research as a form of self-reflection. *Qual Health Res*. 2006; 16:405–14. [PubMed: 16449689]

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Table**CEASE Training Steps**

Step	Training Modality	Content
Step 1: Training box mailed to practices and reviewed independently by clinicians	Self-review of training box Asynchronous Mandatory	Paper training manual (consists of instruction on how to complete NRT prescriptions and quitline forms) USB stick (consists of electronic copies of all paper materials and video training files) Implementation Guide (a 1-page guide on how to implement CEASE) iPad for use in screening families for smoking status
Step 2: Training video mailed to practices and reviewed independently by clinicians	Self-review of training video (online and in the training box) Asynchronous Mandatory	20-minute training video The goal of the video is to describe the need for the intervention and how to address family tobacco use
Step 3: Phone call conducted with trainers (PI, CEASE Project Director, and/or Project Research Assistant) and the project leader	Telephone call Synchronous Mandatory	45- to 60-minute telephone training The goal of the call is to present principles of family tobacco control and to equip the project leader to lead the whole office training call (train-the-trainer)
Step 4: Phone call conducted with project leader (with trainers [PI, CEASE Project Director, and/or Project Research Assistant]) and whole office staff	Telephone call Synchronous Mandatory	45- to 60-minute telephone training Project leader presents family tobacco control principles to other clinicians and staff. Study team is available to support and answer any questions.
Step 5: Tobacco Treatment Specialist training offered to all staff members	Tobacco Treatment Specialist training online through the University of Massachusetts Medical School Asynchronous Voluntary	Online short course designed to train health care workers in the basics of working with tobacco users
Step 6: EQIPP training on tobacco control offered to all clinicians	EQIPP module online through the American Academy of Pediatrics (AAP) Division of eLearning Asynchronous Voluntary	Online educational course to train pediatric clinicians in practice change for tobacco control; course qualifies for American Board of Pediatrics Maintenance of Certification Part IV Credit
Step 7: Training clinicians and staff for CEASE sustainability	Telephone call Synchronous Mandatory	Short, routine telephone contact with pediatric clinicians and staff, tailored to meet the needs of the office