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## Invited Commentary

# Proactive Outreach Strategies to Connect Smokers With Tobacco Cessation Treatment

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**Most smokers want to quit smoking** but try to stop without using tobacco cessation treatment. Because abundant evidence supports the efficacy of behavioral, pharmacologic, and

combination treatment for tobacco dependence, it is important to increase the proportion of smokers who take

advantage of therapy. Evidence confirms that current tobacco treatment models that rely on the patient or clinician to initiate treatment fail to reach all smokers interested in quitting. Proactive outreach strategies are increasingly being evaluated as a systematic approach to engage “hard-to-reach” smokers to increase the use of evidence-based tobacco treatments.

In this issue of *JAMA Internal Medicine*, Haas et al<sup>1</sup> describe results of a randomized clinical trial (RCT) testing an innovative intervention to reach out to all smokers in a health care system that included 13 primary care practices. Two tools were instrumental to the intervention design: the electronic health record (EHR) to identify smokers, and (IVR) to deliver telephone outreach and connection to a tobacco treatment specialist. In addition to typical smoking cessation counseling content, the specialist promoted referral to community resources to try to address some of the social determinants that contribute to tobacco use and might stand in the way of quitting, such as unemployment and education needs. The authors report a statistically significant improvement in 7-day point-prevalent abstinence in the intervention group compared with usual care (control): 17.8% vs 8.1% (odds ratio [OR], 2.5; 95% CI, 1.5-4.0) ( $P < .001$ ). Of note, the intervention was similarly effective for those who planned and did not plan to quit.<sup>1</sup>

Routine recording of smoking status in the EHR affords an important opportunity for systematic identification of smokers. The use of coded data to instigate smoking cessation intervention without relying on clinician action is a strategic method to address significant disparities in delivery and utilization of tobacco dependence treatment among low-income smokers. Existing literature documents important barriers to accessing treatment in this population at the patient level (eg, lack of knowledge about effective treatments, low self-

efficacy), clinician level (eg, lack of time, bias about interest in quitting and likelihood of quitting), and systems level (eg, access to appointments, insurance coverage).<sup>2</sup> Automated electronic systems to identify smokers and deliver outreach have the considerable advantage of being blind to estimations of interest in and capacity to quit, which are subject to bias. In spite of low rates of treatment, numerous studies have documented considerable interest in quitting among low-income smokers.

Advantages of proactive outreach may extend to other populations that experience disparities in tobacco treatment in addition to low-income smokers. For example, because systematic outreach is a robust approach to institutional and clinician bias, it has potential to address low tobacco treatment rates among minority populations, populations with mental health diagnoses, and those with substance abuse diagnoses. More than half of smokers in the United States belong to 1 or more of these groups.<sup>3,4</sup>

There are limitations to this approach. Data from the EHR extend clinical treatment of tobacco dependence<sup>4</sup> but may not be accurate. However, the consequences of incorrect identification of a nonsmoking patient as a smoker are minor, while the incorrect identification of a smoker as a nonsmoker is a missed opportunity for intervention—or it might be the result of the patient recently quitting, in which case the intervention could be adapted for relapse prevention.

The automated nature of IVR makes it an appealing tool for information dissemination and intervention implementation. Although an initial investment in development and programming is required, the downstream costs of extending treatment to large numbers of smokers are low. In addition, the automated contact means that treatment delivery and data collection can occur during the same interaction, as in this study,<sup>1</sup> rather than employing different staff members for each purpose. There may be resistance to IVR, however, that limits this mode of communication. In the current study,<sup>1</sup> 62% of participants in the intervention arm were never reached by the IVR system, and an additional 29% declined to participate, leaving only 8% of eligible patients accessing treatments. In a study by Fu et al,<sup>5</sup> however, 62%



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of personal outreach telephone calls were completed, and 30% were interested in counseling. It is therefore possible that this IVR limitation might be mitigated by further tailoring of the message system or by using personal phone calls to follow up with those who do not want to engage with the IVR. This approach would be more resource intensive, but given the highly cost-effective nature of smoking cessation interventions in general, it might still prove efficient.

Haas et al<sup>1</sup> describe a multicomponent intervention, and although receipt of certain components were more or less associated with abstinence, it is not possible to determine the independent contributions of outreach, counseling, nicotine replacement therapy (NRT), or connection to community resources. Two observations, however, are provocative. The lack of association between success in quitting and use of NRT contrasts with the body of literature, which suggests that NRT is efficacious for smoking cessation.<sup>4</sup> Use of population-based approaches is more likely to bring in smokers who are less motivated to quit, and it is possible that counseling will play a more important role than medication use for those who are less ready to stop smoking, particularly compared with traditional smoking cessation treatment trials that start with a population that is ready to set a quit date. Also, use of the referral system to access health and human service agencies was associated with success, although attributing efficacy to this intervention component may be confounded by other participant characteristics.

The findings are very consistent with the Veterans Victory Over Tobacco Study.<sup>5</sup> This project identified veterans who smoked using the EHR and randomized them to mailed and telephone outreach methods, offering a choice between (1) tele-

phone coaching plus NRT or referral to Veterans Affairs smoking cessation services or (2) usual care. The OR for quitting in the intervention group was 1.27 (95% CI, 1.03-1.57), and the quit rate in the intervention group, 13.5%, was in the same range as was found in this proactive outreach study,<sup>1</sup> although in an entirely different population. In aggregate, these RCTs strongly suggest that proactive tobacco treatment will reach more smokers than reactive treatment.

This trial<sup>1</sup> makes an important contribution by focusing on low-income smokers. Data suggest that this is an increasingly large proportion of US smokers. The National Cancer Institute funded a group of RCTs in 2008 that examined novel ways to reach low-income smokers, including residents of public housing, patients receiving subsidized health insurance from the state, those less motivated to quit, people in community correction programs, emergency department patients, low income veterans, and Native Americans. Results from this diverse group of trial participants will shed further light on the best ways to adapt evidence-based interventions to these priority populations.

The focus on dissemination of treatment to engage smokers is a clear strength of this report.<sup>1</sup> Results support continued investigation of new proactive methods to extend treatment to hard-to-reach populations. Importantly, the results challenge assumptions that low-income smokers are not interested in quitting and that treatment is not effective in this population. A population-based approach that extends tobacco dependence treatment to all income groups, all racial and ethnic groups, and patients with all comorbidities is the only way to effectively reduce the prevalence of smoking in the United States.

#### ARTICLE INFORMATION

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