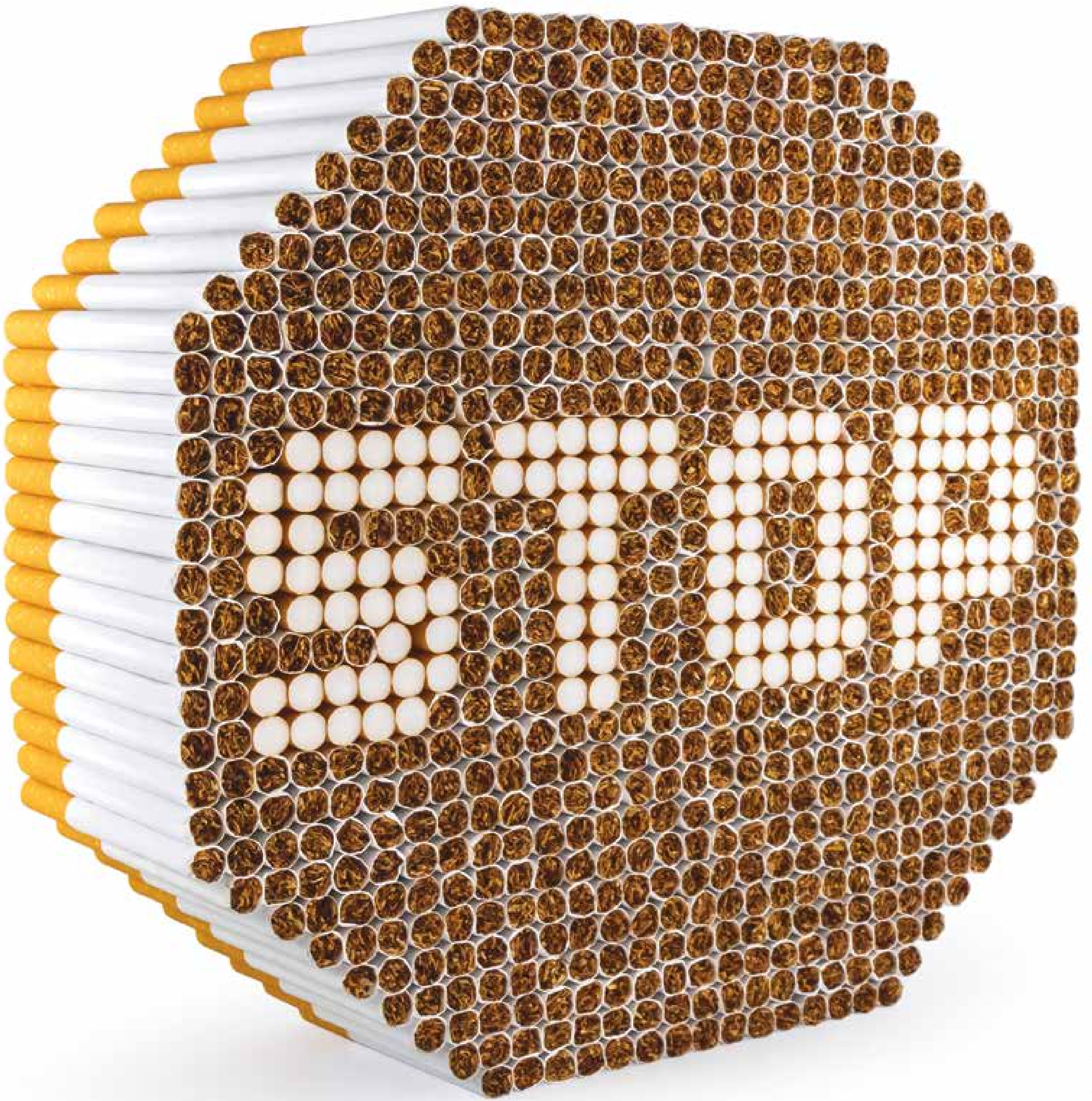

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Study highlights drivers and challenges facing comprehensive tobacco treatment programs

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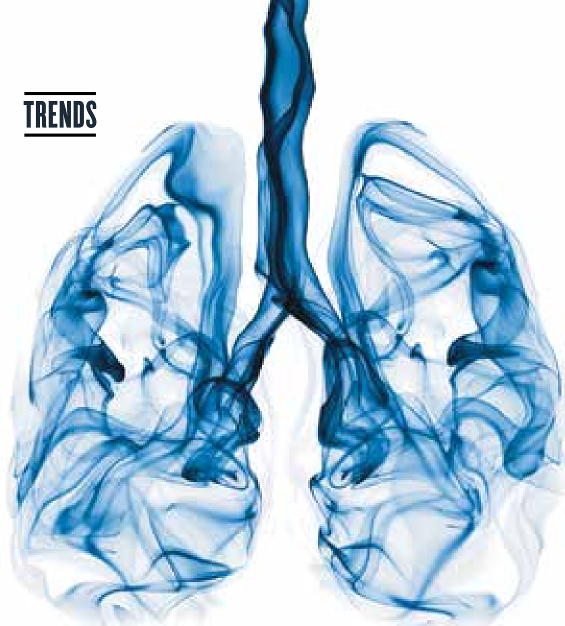
Tobacco use remains a leading cause of preventable morbidity and mortality, killing more than 480,000 people annually in the United States.[1,2] Despite decreases in the prevalence of cigarette smoking, 15.1% of adults continue to smoke cigarettes.[3] The persistence of smoking consequently accounts for a sizable proportion of health services utilization. In 2010, 8.7% of healthcare spending, or $170 billion, was attributed to adult cigarette smoking.[4] The disproportionate burden of tobacco use on healthcare spending indicates the significant return-on-investment that can be achieved from effective interventions that help individuals stop using tobacco.[5,6]

Research shows that comprehensive tobacco cessation programs in inpatient and outpatient health system settings that include combined pharmacotherapy and counseling are effective for users attempting to quit, and more effective than either alone.[7-9] Recent regulatory and community-health drivers have encouraged health systems to integrate smoking cessation interventions into patient care (see "Regulatory Drivers of Smoking Cessation").

In addition, prevention leaders are making the case that health systems face a medical and moral imperative to provide comprehensive smoking cessation given the prevalence of use, high costs to the healthcare system, availability of effective treatment, and impact on population health.[10,11]

Challenges

However, comprehensive tobacco cessation programs are not widely implemented in healthcare systems, and patients are often not receiving the support they need to quit. Healthcare providers do not consistently follow recommended guidelines for tobacco cessation treatment (i.e. the "five A's"). One review found that fewer than 20% of smokers were provided assistance to quit and that patients were not consistently referred to treatment.[12] In addition,



Comprehensive tobacco cessation programs are not widely implemented in healthcare systems, and patients are often not receiving the support they need to quit.

while federal law requires health plans to cover tobacco cessation services, counseling and pharmacotherapy are not consistently covered, leading to a variety of access and financial barriers that prevent patients from using comprehensive cessation programs.[12,13]

Given significant gaps in the current healthcare tobacco cessation infrastructure, Prevention Partners, a nonprofit that focuses on decreasing tobacco use, conducted a study to gain insights into the views and experiences of early adopter health systems that are well ahead of others in implementing system-wide comprehensive tobacco cessation programs. Prevention Partners joined with Pfizer Medical Affairs, which funded the study, to identify a unique set of healthcare leaders with extensive clinical, research, and real-world experience implementing comprehensive cessation programs and managing the challenges of putting these programs in place. The study's purpose was to improve understanding of system-level factors that influenced the adoption of comprehensive tobacco dependence treatment programs.

Methods

We conducted a qualitative study, including semi-structured interviews with tobacco treatment experts and early adopter health systems.

Sampling, Selection, and Recruitment

Participants were identified based on pre-established criteria: (1) leading clinicians in the field of tobacco cessation or (2) early adopter health system leaders who had initiated strong tobacco cessation programs or were recommended by other participants. Twenty-three individuals were contacted, and 17 agreed to be interviewed (74%).

Interview Guide Development

Semi-structured interview guides were developed for tobacco treatment experts and health system leaders. The tobacco treatment expert interview guide focused on contextual topics related to creating, adopting, and sustaining clinical tobacco cessation programs, including:

- Drivers and value of comprehensive smoking cessation programs
- Healthcare provider and medical training
- State-specific influences and funding
- Emerging issues

The health system leader interview guide focused on organization-level factors related to implementing clinical tobacco cessation programs (for inpatients and outpatients), including smoking cessation programs/protocols, electronic health record (EHR) integration, regulatory levers, organizational mindset, and sustainability and funding.

Data collection

Key informant interviews were conducted between September 2016 and January 2017. All interviews were conducted by telephone by Prevention Partners, digitally recorded verbatim, and transcribed.

Analysis

We used deductive and inductive approaches for codebook development based on peer-reviewed literature of clinical tobacco cessation programs (i.e. deductive) and themes identified by the research team after an initial review of the transcripts (i.e. inductive).[14] Two independent coders from Prevention Partners analyzed data using R statistical software package for Qualitative Data Analysis (RQDA).[15] The coders met regularly throughout the coding process to reach 100% consensus on all coding, after which coding reports were aggregated and generated by theme and question.

Emerging Themes

Five major themes emerged:

1. Reframing perceptions and attitudes
2. Providers' perceptions of their support abilities
3. Leadership and administrative support
4. Financial sustainability
5. Disparities within smoking populations

THEME #1

Reframing Perceptions and Attitudes

The most pervasive theme focused on reframing smoking from a bad habit to a chronically relapsing condition of nicotine dependence. Within the broad theme of reframing, three sub-themes emerged: (1) viewing tobacco use as a chronic condition and addiction; (2) rethinking readiness to quit;

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Table 1

Study Participants' Views of Smoking Cessation Providers

Problem	Suggestion	Illustrative Quotes
Some providers continue to see smoking as a bad habit or have preconceived negative attitudes toward smokers.	Develop provider-focused education about tobacco use as a chronically relapsing disease and highly addictive substance.	"Everybody here wants to do a really good job, they just have never really come to realize what a really good job is defined as when it comes to tobacco dependence—like a fish being unaware of the water, they've been bathed for so many years in the notion that telling people tobacco is bad for you and that you should stop and that it's the No. 1 preventable cause of heart disease."
	Implement provider-led positive messaging campaigns.	One tobacco treatment expert described an initiative at a colleague's health system in which all the nurses wore buttons that said, "I'm a nurse and I love smokers."
Many/most providers want to be helpful but don't always know how.	Redefine what "success" means for providers; create a pathway in which providers can feel successful.	"Our problem in the field has been that we have used the word success entirely too much to represent prolonged abstinence from smoking. So, what happens is doctors have made that same association that their success equals the patient's prolonged abstinence from smoking, and their biases tell them, nobody quits smoking, they can't be successful. So, we redefine success, so it doesn't matter whether they're smoking or not, you're a good doctor if you deal with it—and dealing with it means, try this whether they want to quit or they don't. If they don't want to quit and you don't know what to do about it to change that, send them to see us."
	Establish a "specialty" for tobacco dependence treatment that shifts care/treatment from providers so that they only have to identify and refer.	"The systems that we've set up are essentially taking the care away from the health provider. The only thing they are required to do is identify the patient. … We take it away from them and we've sort of developed an independent parallel universe, and we feed information to them so they know what's been done."
	Create auto-referral systems within the EHR.	"In 2012, we created an automated referral system and those patients that are identified as a smoker are now automatically referred to our tobacco treatment program. Before that, it was strictly recruitment based on physician knowledge of the tobacco treatment program. Since we began the automatic referral program, we found that there was a four-fold increase in patients referred to the treatment program. We have now created an algorithm for that treatment and for that automatic referral so that patients are being identified automatically through the EMR system."
The conversation about readiness can impede helping smokers to quit.	Implement opt-out systems for treatment in which treatment is recommended to all smokers.	"This is not about the quitting, it's about treating the dependence in order to bring them to a place where they're ready to quit."

and (3) focusing on positive conversations and relationships with patients. Participants discussed the need to view tobacco use like other chronic diseases (e.g. diabetes) both in terms of management and ensuring adequate training for healthcare providers. One participant commented:

"Nobody wants to talk about it. … Tobacco use isn't a bad habit. … It's a cycle of relapse and remission. So, until people start thinking of it as a chronic disease, people aren't going to touch it."

Underlining gaps in knowledge about tobacco dependence as an addiction and chronic disease, participants suggested that healthcare professional training inadequately prepares providers to understand the basic neurobiology of tobacco dependence and nicotine addiction or, subsequently, how to prescribe smoking cessation pharmacotherapy to manage nicotine withdrawal appropriately and effectively. Among these comments:

"Considering the fact that you are talking about a condition that effects roughly 15% of all adult Americans and is responsible for 1 in 5 deaths and hundreds of billions of dollars annually in medical expenditures, the lack of detailed knowledge on how to do what we do is remarkable."

Participants suggested moving away from the concept of asking smokers about their "readiness to quit" to encouraging nicotine dependence treatment regardless of a patient's stage of readiness:

"Probably the biggest impediment to forward momentum is the idea of readiness to quit. [Smoking] is a problem of ambivalence; ambivalence by definition means that I am simultaneously ready to change and not ready to change. ... Change your conversation about [readiness] and the patients will come out of the woodwork."

Multiple participants suggested moving toward "opt-out" treatment systems—in which treatment is recommended to all smokers regardless of their readiness to quit—rather than "opt-in" systems based on a patient's readiness to quit, which are widely used today. Three health systems said they treat all patients who smoke regardless of their readiness to quit, with one suggesting:

"This is not about the quitting, it's about treating the dependence in order to bring them to a place where they're ready to quit."

In addition, one healthcare system described that, for inpatients, framing the conversation around making patients comfortable by managing withdrawal symptoms during their hospital stay—rather than whether or not they are ready to quit—is helpful both for easing patient anxieties (e.g. being in the hospital and not able to smoke, etc.) and preparing them for a conversation later about extending their tobacco dependence treatment after discharge.

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[Participants] recommended moving from "shaming" statements like, "You should quit," to statements affirming their sense of caring for the patient, stressing that "the single most important thing you can do for your health is stop smoking, and I'm here to be your partner in that."

Participants described how they have reframed healthcare provider language and conversations with smokers. They recommended moving from "shaming" statements like, "You should quit," to statements affirming their sense of caring for the patient, stressing that "the single most important thing you can do for your health is stop smoking, and I'm here to be your partner in that," and affirming the provider's interest in developing a partnership to support the patient to quit.

THEME #2

Providers' Perceptions of Their Support Abilities

Participants offered two somewhat conflicting views of providers (see Table 1), each presenting different sets of challenges. Participants suggested that some providers have preconceived negative attitudes toward smokers and see smoking as a bad habit. However, they also described most providers as wanting to help, but lacking the expertise or skills to best support quitting. Table 1 presents these two views alongside suggestions participants made for how to address these issues and quotes to illustrate their points.

THEME #3

Leadership and Administrative Support

Participants described the importance of gaining buy-in from top-level health system leadership, described as someone who has "political and organization juice," to develop a successful and sustainable smoking cessation program. Ideal leaders would understand that smoking cessation programs "will save money, make money, and save lives" and are part of multiyear commitments within the health system. Participants also described the importance of identifying internal champions to move the program

forward after securing leadership's support, ideally people with an understanding of organizational change and enough influence and administrative support to make those changes happen.

Several suggestions for how leadership can strategically support a comprehensive cessation program included: personally sending emails to the "right people" to get a program going, then passing off day-to-day responsibilities to an internal champion; including tobacco cessation as a quality measure and/or specific goal for the organization; and encouraging physicians to refer to the services.

THEME #4

Financial Sustainability

Another prevalent theme focused on funding models for smoking cessation programs and the challenges presented by a lack of funding. Participants described the importance of making the business case for investing in comprehensive smoking cessation programs using language that hospital administrators value.

Some participants suggested changing the conversation from dollars saved to potential revenue earned because appropriate surgeries—both elective (e.g. orthopedic, plastic) and life-saving (e.g. transplants)—can be done with few complications and improved outcomes when smokers quit. They noted that the role of smoking in total cost of care can be a compelling talking point for hospital administrators, especially as the movement toward accountable care organizations (ACOs) evolves.

While many health systems referenced a general perception that smoking cessation programs are "money losers," multiple participants described their development of financially sustainable models.

Funding sources for tobacco treatment programs in each of the health systems studied varied widely, including: internal sources (such as revenue from billing for necessary medical services and evaluation/management, population health management programs, or the cancer center); the state Tobacco Trust; a local philanthropic organization; and the Centers for Disease Control and Prevention. Important strategies that health system participants used for financial sustainability included:

- Implementing billing systems that use templated documentation tools within the EHR, link to specific billing codes, and provide guidance on documentation requirements for reimbursement (e.g. using "smart phrases" within the Epic EHR).
- Identifying and ordering medically appropriate billable procedures (e.g. CO testing, spirometry testing, and pulmonary screening for all smokers). One health system noted that screening all smokers for pulmonary diseases generated medically appropriate revenue, identified new cases of COPD, and had biochemically confirmed quit rates of over 50% at 12-month follow-up.
- Instituting "bundled care" or bundled payments.
- Identifying potential savings by lowering readmissions exacerbated by smoking (e.g. asthma, COPD), particularly related to Centers for Medicare & Medicaid Services (CMS) readmission penalties.
- Recognizing Certified Tobacco Treatment Specialists (CTTSs) and pharmacists as providers so they can bill for their time. One health system successfully negotiated with its local payer to allow billing for CTTSs.

Regulatory Levers

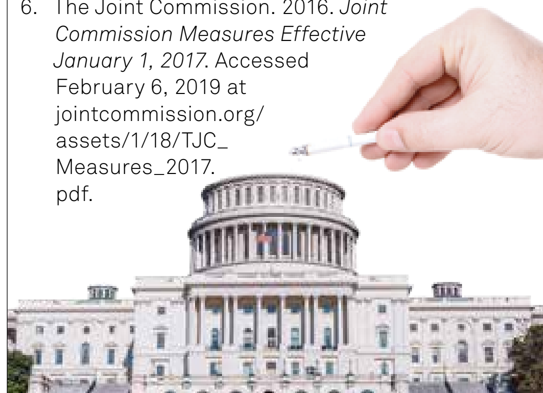
2009. As part of Meaningful Use (MU) regulation, the Centers for Medicare & Medicaid Services incentivizes routine measurement of patient smoking status as structured data in EHRs, thereby greatly improving the potential for targeting tobacco cessation interventions to patients.[1-4]

2012. The Joint Commission adds a "Tobacco Use Performance Measure Set" to measure the integration of evidence-based clinical tobacco cessation interventions.[5] However, healthcare systems are free to substitute one of 13 other measure sets in lieu of the tobacco measure set.

2015. The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) includes tobacco use screening and cessation intervention in the quality payment program.[6]

References

1. R.G. Boyle, L.I. Solberg, and M.C. Fiore. 2010. Electronic Medical Records to Increase the Clinical Treatment of Tobacco Dependence: A Systematic Review. *American Journal of Preventive Medicine,* 39(6), Suppl. 1: S77–S82
2. D.A. Greenwood, C.A. Parise, T.A. MacAller, et al. 2012. Utilizing Clinical Support Staff and Electronic Health Records to Increase Tobacco Use Documentation and Referrals to a State Quitline. *Journal of Vascular Nursing,* 30(4): 107–111.
3. M. Blumenthal, D. Tavenner. 2010. The "Meaningful Use" Regulation for Electronic Health Records. *New England Journal of Medicine,* 363: 501–504.
4. J.M. Schindler-Ruwisch, L.C. Abroms, S.L. Bernstein, and C.L. Heminger. 2017. A Content Analysis of Electronic Health Record (EHR) Functionality to Support Tobacco Treatment. *Translational Behavioral Medicine,* 7(2): 148–156.
5. Ibid.
6. The Joint Commission. 2016. *Joint Commission Measures Effective January 1, 2017.* Accessed February 6, 2019 at jointcommission.org/assets/1/18/TJC_Measures_2017.pdf.



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- Learning from systems that have already done this successfully.

Tobacco treatment experts also noted that healthcare providers are often not using all available and appropriate billing codes, especially for the full continuum of care, including treatment and follow-up, not just counseling.

THEME #5

Disparities Within Smoking Populations

Participants referenced disparities and/or special populations within the broader smoking population, highlighting the large number of smokers who are in marginalized or economically disadvantaged populations (such as people with mental illnesses or substance use disorders, or who are homeless) and/or have comorbid conditions. These populations tend to face complications around affordability, access to care, prioritizing care, and coordinating care, all of which should be considered within a funding model that seeks to support these individuals.

Specifically, considering how to capture appropriate reimbursements from Medicaid and Medicare would be an important funding strategy for these populations. Given the complexity of patients who may be in need of smoking cessation intervention, having strategies in place—such as having a case manager, social worker, or other dedicated provider who can address logistical challenges—is critical to overcoming these barriers.

Other Pivotal Findings

In addition to the five major themes, health systems participants emphasized that EHR systems are pivotal to their comprehensive smoking cessation programs, specifically for supporting screening, assessment, and treatment and linking physicians to education materials, clinical decision support, and automatic referral processes for enhancing care.

Looking Ahead

Healthcare systems and providers have a critical role to play in helping patients to quit smoking. We identified important system-level drivers for establishing successful smoking cessation programs, including:

- Educating healthcare providers and patients alike that smoking is not a "bad habit" but an addiction with cycles of relapse that should be treated like other chronic diseases
- Moving away from "readiness to quit" as a metric for engaging smokers to encouraging nicotine dependence treatment or developing systems for patients to "opt-out" of treatment, regardless of a patient's stage of readiness
- Securing the buy-in of top-level leadership
- Developing a sustainable business model

Participants cited a variety of challenges to implementing comprehensive tobacco treatment programs, such as lack of resources and staff, provider perception that smoking is difficult to treat, smokers' fear of failure after multiple quit attempts, and smokers' fear that their provider will judge them negatively.

However, they also resoundingly agreed that implementing comprehensive tobacco treatment programs is possible.

The 17 providers interviewed represent leading experts and health systems in tobacco cessation, so their experience is not necessarily generalizable to all health systems. However, their experience is meant to represent early adopters who are paving the way for spreading innovation across systems poised to follow in their footsteps.

Critical Success Factors

As healthcare systems successfully implement comprehensive smoking cessation programs, promising opportunities will arise to share best practices on what drivers, processes, EHR-enabled capabilities, reimbursement strategies, and clinical training in tobacco dependence and treatment lead to effective programs. Given the current healthcare landscape around Quality Performance Programs, ACOs, and other incentive programs, the environment is primed to gain leadership support and provider buy-in working toward initiatives that ultimately reduce total cost of care and improve patient outcomes.

Findings from this study demonstrate an overarching common theme that success is possible given a focus on the critical factors identified by these thought leaders and institutions. GPJ

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References

1. P. Jha, C. Ramasundarahettige, V. Landsman, et al. 2013. 21st-Century Hazards of Smoking and Benefits of Cessation in the United States. *New England Journal of Medicine,* 368(4): 341–350.
2. Centers for Disease Control and Prevention. 2014. *Health Consequences of Smoking—50 Years of Progress*. Report of the Surgeon General.
3. E. Phillips, T. Wang, C. Husten, et al. 2017. Tobacco Product Use Among Adults—United States, 2015. *Morbidity and Mortality Weekly Report*, 66(44): 1209–1215,.
4. X. Xu, E.E. Bishop, S.M. Kennedy, et al. 2015. Annual Healthcare Spending Attributable to Cigarette Smoking: An Update. *American Journal of Preventive Medicine,* 48(30): 326–333.
5. J.A. Dilley, J.R. Harris, M J. Boysun, and T.R. Reid. 2012. Program, Policy, and Price Interventions for Tobacco Control: Quantifying the Return on Investment of a State Tobacco Control Program. *American Journal of Pubic Health,* 102(2): 22–29.
6. P. Richard, K. West, and L. Ku. 2012. Return on Investment of a Medicaid Tobacco Cessation Program in Massachusetts. *PLoS One,* 7(1).
7. N.A. Rigotti, M.R. Munafo, and L.F. Stead. 2008. Smoking Cessation Interventions for Hospitalized Smokers: A Systematic Review. *Archives of Internal Medicine,* 168(18): 1950–1960.
8. M.C. Fiore, C.R. Jaén, T.B. Baker, et al. 2008. Clinical Practice Guideline for Treating Tobacco Use and Dependence: 2008 Update. A U.S. Public Health Service Report. *American Journal of Preventive Medicine,* 35(2): 158–176.
9. L. Stead, P. Koilpillai, T. Fanshawe, and T. Lancaster. 2016. Combined Pharmacotherapy and Behavioural Interventions for Smoking Cessation. Cochrane Database of Systemic Review, 2016(3).
10. M. C. Fiore, E. Goplerud, and S. A. Schroeder. 2012. Joint Commission's New Tobacco-Cessation Measures—Will Hospitals Do the Right Thing? *New England Journal of Medicine,* 366(13): 1172–1174.
11. T. Norris and T. Howard. Can Hospitals Heal America's Communities? "All in for Mission" Is the Emerging Model for Impact, 2015. *Democracy Collaborative,* 1–34.
12. S.E. Gollust, S.A. Schroeder, and K E. Warner. 2008. Helping Smokers Quit: Understanding the Barriers to Utilization of Smoking Cessation Services. *Milbank Quarterly,* 86(4): 601–627.
13. American Cancer Society Cancer Action Network. 2017. Tobacco Cessation Insurance Coverage. Accessed February 6, 2019 at acscan.org/policy-resources/tobacco-cessation-insurance-coverage.
14. L. Vanderlee, M.M. Vine, N.E. Fenton, and D. Hammond. 2016. Stakeholder Perspectives on Implementing Menu Labeling in a Cafeteria Setting. *American Journal of Health Behavior,* 40(3): 371–380.
15. R. Huang. 2016. RQDA: R-based Qualitative Data Analysis. R package version 0.2-8.

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