

Using Health Systems Change to Increase Tobacco Cessation: What Can State Tobacco Control Programs Do? Frequently Asked Questions (FAQ)

A transformation of the US health care system is under way. The Affordable Care Act and related health reform initiatives have created new opportunities to implement *system changes* in health care to reduce tobacco use, with the goal of improving services, improving health, and reducing costs. As part of the 2014 [Best Practices for Comprehensive Tobacco Control Programs](#), CDC asks states to engage in health systems change work.¹ Below is a set of frequently asked questions (FAQs) about health systems change that are intended to help state tobacco control programs plan and implement health systems change initiatives.

Q. What does “health systems change” mean in the context of tobacco control?

A. Health systems change involves institutionalizing tobacco cessation interventions into routine clinical care in health care systems (e.g., clinics, hospitals, dental offices, pharmacies, emergency departments).¹ The goals of health systems change with regard to tobacco cessation are to ensure that (1) every patient is screened for tobacco use and tobacco use status is documented, and (2) patients who use tobacco are advised to quit and provided with options for evidence-based treatments.² Changes to the health systems to make tobacco cessation interventions more routine may include a variety of components, from creating decision support tools and developing clinical workflow to modifying electronic health records (EHRs) and generating routine feedback on performance.

Q: What is a “health system”?

A: In the hospital, clinic, or health care practice, the “system” includes the organization’s goals and policies; administrative, clinical, and information processes, as well as related technologies; quality improvement initiatives; and clinical education and training.

Q: Why is health systems change important for tobacco control?

A: Instituting tobacco cessation interventions in a systematic way significantly increases the likelihood that health care providers will consistently screen patients for tobacco use and intervene with patients who use tobacco to provide or connect them with appropriate treatment.^{2,3} When a health system seeks to intervene with every tobacco user at every visit, it can significantly increase patients’ tobacco cessation.^{2,4} An estimated 80% of tobacco users in the United States see a health care provider each year,^{1,2} making the health care system an important setting in which to reduce smoking rates among diverse populations, including those most at risk.

Effective tobacco cessation interventions advance national and state goals of improving health care, improving health, and reducing health care costs.^{1,5} Health systems change for tobacco prevention and control is recommended by the 2008 Public Health Service Clinical Practice Guideline, *Treating Tobacco Use and Dependence* and by CDC’s *Best Practices for Comprehensive Tobacco Control Programs*.^{1,2}

Q: What does health systems change look like in practice?

A: No one model of health systems change “fits all.” Effective systems are typically tailored to a specific facility and its financial resources, workflow and staffing arrangements, referral resources, patient populations, EHR functionality, and internal and external quality improvement requirements. The following major components are typically addressed when implementing system changes:

1. **Delivery System Design:** The way the delivery of clinical care is organized can help ensure that tobacco use screening and treatment are effectively, efficiently, and routinely integrated into this care. Areas of the delivery system that may require systems change include:
 - **Team member roles** – A critical component of delivery system design is dedicating staff and assigning members of the health care team specific roles related to tobacco screening and treatment (e.g., a medical assistant may collect tobacco use status, a nurse may assess readiness to quit or link interested patients with treatment resources, a physician may advise patients to quit and discuss treatment options).

- **Clinical workflow** – Developing a clinical workflow for the intervention is also important (e.g., who carries out each step of the intervention, when each step occurs in the course of the clinical encounter, and what information is needed at each step). As described below, a clinical workflow is not only essential to the design of a delivery system, but is an integral part of developing or modifying the EHR.
 - **Follow-up** – In tobacco cessation interventions, patient follow-up has increasingly become integrated into tobacco-related quality measures in health care systems. Follow-up may occur in the clinic or in conjunction with an outside referral resource like a tobacco quitline or an in-person counseling or coaching program. Follow-up may also be needed between health care systems (e.g., from a hospital to a clinic). For example, a doctor's office can refer a patient who wants to quit smoking to the state quitline and can receive a report from the quitline on the services the patient received and on outcomes.
 - **Performance feedback for clinicians** – Clinicians should receive routine feedback about their performance and implementation of tobacco cessation interventions, drawing on data from chart audits, EHRs, and computerized patient databases.²
2. **Clinical Information Systems and EHRs:** More health care providers and hospitals are making the switch from paper health records to EHRs, largely as a result of financial incentives offered as part of the [Meaningful Use initiative](#). When EHRs are implemented in a way that explicitly incorporates tobacco dependence treatment as part of a broader process of health systems change, they can generate reminders, prompting providers to screen their patients for and intervene on tobacco use. EHR functions that be addressed through health systems change include:
- **Template design and provider reminder systems** – Embedding tobacco use screening and treatment or referral fields into the EHR template provides a standard way to document a tobacco intervention. However, just having the fields on the EHR template is not sufficient. Incorporating provider reminders into the EHR is also crucial and can increase tobacco use screening, cessation counseling, and documentation of cessation interventions.
 - **Clinical Workflow** – Ensuring that the design and flow of the EHR template mirror the health care system's existing tobacco intervention workflow will help the EHR to be effective and efficient.
 - **Data retrieval** – Ideally, EHRs should be designed to permit the retrieval of aggregate patient-level data, allowing health care systems to identify all of their patients who use tobacco and track tobacco cessation outcomes over time. It should also allow for production of routine reports for performance monitoring by department, team, or clinician.
3. **Decision Support Systems:** Decision support systems promote the use of evidence-based guidelines or interventions. In the context of tobacco cessation, the functions of these systems may include:
- **Standardizing and delivering regular training** about cessation interventions to clinical staff, including regular updates on tobacco dependence treatment guidelines.
 - **Providing performance feedback** to improve care.
 - **Embedding decision support schematics or scripting in the EHR** to help guide clinicians through an evidence-based intervention approach.

Q: What are the keys to establishing a sustainable tobacco treatment system in a health care setting?

A: In the health care facility itself, the following factors can help tobacco treatment systems to be adopted:

- Having organizational commitment, including buy-in from upper management.
- Taking a team approach to intervention delivery, including engaging both administrative and clinical team members.
- Integrating tobacco-related measures into internal quality improvement processes or external quality improvement programs (e.g., Joint Commission review, Center for Medicare and Medicaid Services quality measures, private payer pay-for-performance initiatives) to incentivize performance.
- Developing [certified EHRs](#) with templates that align with clinical guidelines, include provider reminder systems, and can easily generate registries of tobacco users for repeated and targeted interventions and feedback reports.
- Integrating care with internal or community resources that can provide intensive tobacco treatment, such as state tobacco quitlines, and establishing capacity for bi-directional data exchange and reporting (e.g., the state quitline is able to report on the services it provided to patients and on their outcomes).

Q: How can state tobacco control programs promote health systems change?

A: As noted in CDC's *Best Practices for Comprehensive Tobacco Control Programs*, academic detailing can be used to promote health systems change. In academic detailing, state tobacco control programs educate clinicians face-to-face, providing hands-on technical assistance to health care practices to integrate tobacco dependence treatment into routine clinical care. More details about academic detailing are available in this [FAQ](#). Several state tobacco control programs have successfully implemented academic detailing efforts⁶⁻⁹ (see this [question and answer](#) with the Wisconsin program, or this [case study](#) about the Arkansas program).

However, academic detailing can be time-intensive, requiring substantial staff commitment and funding, which may be challenging to sustain. As a result, performing this work directly may be beyond the capacity of some state tobacco control programs. Some state programs have used CDC cooperative agreements or grants to contract with well-qualified experts who are already embedded in the health care system to provide technical assistance to clinicians. In some cases, the state quitline service provider has been tasked to go beyond implementing quitline referrals and help health care organizations put a process in place to identify tobacco users and help them with cessation.

State tobacco control programs can also conduct work in this area that does not require hands-on clinical engagement. For example, programs can partner with statewide health care associations to make the case for implementing policy and systems changes among their member organizations to support tobacco cessation and reduce tobacco use, including promoting best-practice examples. State tobacco control programs can also identify and document high-performing health care organizations, including organizations that have implemented tobacco-free campus policies, quitline referrals, and/or health systems changes to increase provider interventions with tobacco users.

As an initial step, state tobacco control programs can establish partnerships with major health plans or large health care delivery systems to explore mutual interests and exchange information and perspectives. Finally, one important role that state tobacco control programs can play is to help health care systems evaluate their data, including claims and EHR data. These data can be used to assess improvements in the delivery of tobacco cessation intervention, assess return on investment for systems, and identify disparate populations using tobacco. The following are sample state health systems change activities, drawn from CDC's *Best Practices for Comprehensive Tobacco Control Programs*.¹

Sample State Activities: Promoting Health Systems Change

- Build and maintain relationships with large health care systems and key stakeholders in the health care sector, and educate them about the feasibility and health and economic benefits of integrating tobacco dependence treatment into their clinical workflows.
- Conduct academic detailing initiatives to provide technical assistance to health care organizations and providers in implementing health systems changes that institutionalize tobacco use screening and intervention, including promoting referrals to the state quitline.
- Collaborate with health care systems, regional extension centers, and other stakeholders to integrate tobacco dependence treatment into electronic health records and workflows.
- Leverage data from electronic health records, insurance claims, and other sources for surveillance/evaluation of the implementation and outcomes of health systems change cessation interventions.

References

1. CDC. *Best Practices for Comprehensive Tobacco Control Programs — 2014*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2014.
2. Fiore MC, Jaén CR, Baker TB, et al. Treating tobacco use and dependence: 2008 update. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service; 2008.
3. Fiore MC, Keller PA, Curry SJ. Health system changes to facilitate the delivery of tobacco-dependence treatment. *Am J Prev Med*. 2007;33(6 Suppl):S349-356.
4. Land TG, Rigotti NA, Levy DE, Schilling T, Warner D, Li W. The effect of systematic clinical interventions with cigarette smokers on quit status and the rates of smoking-related primary care office visits. *PLoS One*. 2012;7(7):e41649.

5. US Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2020 summary objectives: tobacco use. <http://healthypeople.gov/2020/topicsobjectives2020/pdfs/tobaccouse.pdf>. Accessed July 7, 2013.
6. Schauer GL, Thompson JR, Zbikowski SM. Results from an outreach program for health systems change in tobacco cessation. *Health Promot Pract*. 2012;13(5):657-665.
7. Warner DD, Land TG, Rodgers AB, Keithly L. Integrating tobacco cessation quitlines into health care: Massachusetts, 2002-2011. *Prev Chronic Dis*. 2012;9:E133.
8. Adsit R, Fraser D, Redmond L, Smith S, Fiore M. Changing clinical practice, helping people quit: the Wisconsin Cessation Outreach model. *WMJ : official publication of the State Medical Society of Wisconsin*. May 2005;104(4):32-36.
9. Redmond LA, Adsit R, Kobinsky KH, Theobald W, Fiore MC. A decade of experience promoting the clinical treatment of tobacco dependence in Wisconsin. *WMJ : official publication of the State Medical Society of Wisconsin*. 2010; 109(2):71-78.