

# A Multifaceted Approach to Tobacco Health Systems Change

**CENTRA**CARE Health



# Background

## What is Health Systems Change?

Health systems change is a sustainable, integrated solution implemented at the organizational level that supports clinicians and health care systems to address tobacco use consistently and effectively. Systems change leads to improvements in the way that health care systems operate and in patient care.<sup>1,2</sup> However, data from Minnesota illustrate that there is still substantial room for improvement in integrating comprehensive tobacco dependence treatment into routine care. Although almost all smokers report being asked by their health care provider if they smoke and 78.9 percent report being advised to quit, only 52.6 percent of current smokers report receiving a referral for quitting assistance.<sup>3</sup>

## Why is Health Systems Change Important?

The Institute for Healthcare Improvement describes the need to optimize health system performance in order to meet the “Triple Aim” – improving the patient experience of care (including quality and satisfaction), improving the health of populations and reducing the per capita cost of health care.<sup>4</sup> Addressing tobacco use with patients aligns with the Triple Aim: it increases patient satisfaction with their health care<sup>5</sup>; helps patients quit, thereby improving their health<sup>6</sup>; and has a positive return on investment.<sup>7</sup>

## Health Systems Change Project

CentraCare Health (CentraCare) received a two-year grant award from ClearWay Minnesota<sup>SM</sup> to implement health systems changes that would improve CentraCare’s ability to address tobacco use among their patients. The project period was from May 1, 2014, to April 30, 2016. ClearWay Minnesota is an independent nonprofit organization working to improve the health of all Minnesotans by reducing the harm caused by tobacco.<sup>8</sup> Professional Data Analysts, Inc. (PDA) was hired by ClearWay Minnesota to conduct a process evaluation of its health systems change grants. This case study summarizes key activities implemented by CentraCare and lessons learned through their systems change work.

- 1 Curry SJ, Keller PA, Orleans CT, Fiore MC. The role of health care systems in increased tobacco cessation. *Annu Rev Public Health*. 2008;29:411-428.
- 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. May 2008.
- 3 Tobacco Use in Minnesota: 2014 Update. Minneapolis, MN: ClearWay Minnesota<sup>SM</sup> and Minnesota Department of Health; January 2015.

- 4 [www.ihl.org/offering/Initiatives/TripleAim/Pages/default.aspx](http://www.ihl.org/offering/Initiatives/TripleAim/Pages/default.aspx)
- 5 Quinn VP, et al. Tobacco-cessation services and patient satisfaction in nine non-profit HMOs. *Am J Prev Med*. 2005;29:77-84.
- 6 The Health Consequences of Smoking: A Report of the Surgeon General. May 27, 2004.
- 7 Richard P., West K., Ku L. The return on investment of a Medicaid tobacco cessation program in Massachusetts. *PLoS One*. 2012;7:e29665.
- 8 [www.clearwaymn.org](http://www.clearwaymn.org)

## CentraCare Health (CentraCare)

is a not-for-profit health care system that provides comprehensive, high-quality care to people throughout central Minnesota (Figure 1). As of 2016, CentraCare's network consisted of six hospitals and 20 clinics, in addition to multiple pharmacies, nursing homes, and senior housing facilities, serving approximately 700,000 people across 12 counties.<sup>9</sup>

In 2011, CentraCare established a Nicotine Dependence Committee which is led by the Medical Director of the Behavioral Health Services Care Center (Medical Director, BHS). This committee is comprised of team members from various care centers across the system, including pharmacy, clinic, hospital, community outreach, and nursing. With the committee's support, CentraCare created a formal tobacco screening protocol in their electronic health record (EHR) system for both inpatient and outpatient care. This protocol reminds providers to ask patients about tobacco use, advise them on appropriate cessation medication options, and refer interested patients to internal (individual or group counseling) or external (quitline) treatment. Patient care staff are required to complete an online learning module on the tobacco protocol.

In 2012, 13.8 percent of CentraCare's patients – approximately 27,000 people – reported current tobacco use. Given the large number of tobacco users and substantial impact of tobacco use on health, CentraCare proposed to implement a systems change approach to reach and extend treatment to all tobacco users they serve.

## Systems Change Grant Goal

CentraCare's goal for this grant was to establish an innovative approach to treating tobacco dependence that would serve as a model for health systems across the country.

## Key Strategies

- Integrate Tobacco Dependence Treatment into Other Health System Priorities
- Improve Systems for Tobacco User Identification, Treatment, and Outreach
- Improve Clinician Capacity to Deliver Evidence-Based Treatment



Figure 1. CentraCare Locations



# Strategy 1: Integrate Tobacco Dependence Treatment into Other Health System Priorities

In order to elevate tobacco systems changes as a priority, project staff needed to align tobacco dependence treatment with other CentraCare initiatives and larger system-wide goals.



**“Invite yourself to the table...multiple tables.”**

**- Tobacco Cessation Coordinator**

A Tobacco Cessation Coordinator (funded 50 percent by the grant) worked closely with the Medical Director, BHS to identify key leadership, staff, and existing or upcoming initiatives within the system that could help further their systems change goals. The Tobacco Cessation Coordinator worked daily to engage staff and leadership throughout the system by participating in meetings and giving presentations to make the case for how treating tobacco dependence benefits patient health, improves quality, and reduces costs. Simultaneously, the Medical Director, BHS identified and leveraged opportunities to promote tobacco systems change at the executive level, and brought the Tobacco Cessation Coordinator into discussions with key decision makers. The Coordinator worked diligently to strengthen these connections, which was instrumental in gaining additional champions and increasing the priority of the tobacco systems change work within CentraCare.

**“Get on your health system’s agenda to look at population health and total cost of care. Tobacco treatment affects many other areas, and it can be prioritized once you see how it impacts overall health and healthcare savings.”**

**- Executive Champion**



## Successes

Through staff and leadership efforts, tobacco dependence treatment was elevated as a priority for CentraCare, laying important groundwork for expansion of systems changes for tobacco dependence treatment. Specifically, these efforts helped the systems change team obtain approval for a tobacco dependence treatment quality improvement pilot project (described next under Strategy 2: Improve Systems for Tobacco User Identification, Treatment, and Outreach).



## Challenges

Since the system did not prioritize addressing tobacco dependence treatment at the start of the grant, project staff and champions spent the first 6-12 months of the 24-month grant period meeting with multiple providers, administrators, and others within the system to elevate tobacco dependence treatment as a priority. It was necessary for leadership to be educated, or reminded of, the return on investment for tobacco dependence treatment<sup>7</sup> and how addressing tobacco use could help with clinician and system-wide goals relating to the Triple Aim and other CentraCare priorities.

# Strategy 2: Improve Systems for Tobacco User Identification, Treatment, and Outreach

While screening for and documenting tobacco use occurred regularly within the CentraCare system and a tobacco SmartSet with treatment options existed within their EHR, a standardized protocol for intervening with patients identified as tobacco users was not being regularly utilized. In order to make the case for a system-wide approach for tobacco dependence treatment, a pilot tobacco treatment protocol was designed, approved, and implemented at one clinic site. The intent of the pilot was to build grassroots support for the use of the protocols by clinics across the health system.

## Selecting a Pilot Site

Through a risk-stratification process conducted by CentraCare's Total Cost of Care Center, the Big Lake Clinic was identified as having a disproportionately high patient tobacco use prevalence rate (21 percent vs. the CentraCare system average of 13.8 percent). This information was shared with the Performance Excellence and Wellness departments, which are tasked with finding ways to improve the health of patient populations. The Tobacco Cessation Coordinator had established connections with Performance Excellence and Wellness leadership and was informed of the high tobacco use rate at the Big Lake Clinic. This presented an opportunity for the health systems change team to pilot a standardized tobacco treatment protocol as a quality improvement project.

## Obtaining System Approvals

Before the pilot could be conducted at Big Lake, approval was needed from the CentraCare Quality Activation Committee (QAC), an executive leadership team of representatives from across the system. All clinical quality improvement initiatives need to be reviewed and approved by the QAC. Once a project is approved, the project team is held accountable for outcomes defined in the project plan. The pilot project plan included descriptions of:

- The impact of tobacco use on the cost of chronic diseases and information on the return-on-investment for tobacco dependence treatment <sup>7, 10</sup>
- Key project outcomes (e.g., increased utilization of the tobacco SmartSet)
- Alignment with CentraCare system-wide strategies and the potential impact on the Triple Aim

The pilot project was approved by the QAC and implemented over the course of a year, with close monitoring of tobacco use, referral, and treatment documentation.

<sup>10</sup> [http://www.integration.samhsa.gov/health-wellness/How\\_the\\_Affordable\\_Care\\_Act\\_Affects\\_Tobacco\\_Use\\_and\\_Control.pdf](http://www.integration.samhsa.gov/health-wellness/How_the_Affordable_Care_Act_Affects_Tobacco_Use_and_Control.pdf)



## Involving Stakeholders

Big Lake involved all of their providers in discussions about the pilot from the beginning. This collective approach allowed them to have input in assigning roles and responsibilities for the tobacco work and increased their investment in the project. The site also had two key champions, a nursing supervisor and a physician (a former tobacco user), who are passionate about tobacco cessation and who helped make the case for why clinic providers needed to address patient tobacco use. The combination of staff involvement and enthusiasm from leadership facilitated the clinic's readiness for the pilot.

## Training and Process Flow

The American Academy of Family Physicians has a detailed follow-up protocol and toolkit online<sup>11</sup> which served as a key resource for designing and implementing the pilot at Big Lake. They also used the Treating Tobacco Use and Dependence: 2008 Update - Clinical Practice Guideline<sup>2</sup> to develop the pilot.

There were five or six planning/training sessions – about half with providers only and the other half with all clinic staff. A team-based approach was used: everyone had a defined role around tobacco treatment. The Big Lake workflow (see Appendix) walked the provider/care team through each step in supporting tobacco users during their visit to the clinic – from visual cues for patients (e.g., lapel pins, posters) to questions for rooming staff and providers to ask patients, as well as processes for quitline referrals and follow-up visits.

## Monitoring

During the pilot (8/1/15 - 5/31/16), encounters, follow-up visits, and quit status were tracked at the clinic and provider level on a monthly basis. Tobacco was also added to monthly quality improvement reports, and an assessment of workflow performance was conducted. Gaps were identified and solutions were implemented to address the gaps. Data by each provider/medical assistant team were presented to reinforce the team-based format of the workflow.



**“Dissemination of the Big Lake experience has garnered the attention and support of Clinic Quality, leadership, and regional/departmental sites for replication, enhancement, and the renewed spirit that process change can and will produce positive outcomes.”**

**- CentraCare staff member**

Pictured above are the Big Lake Clinical and Clinical Services Assistants, July 2015.

<sup>11</sup> [http://www.aafp.org/dam/AAFP/documents/patient\\_care/tobacco/practice-manual.pdf](http://www.aafp.org/dam/AAFP/documents/patient_care/tobacco/practice-manual.pdf)

## Successes

During the ten-month pilot, utilizing their advanced care delivery practices, Big Lake reduced their total patient tobacco use rate from 21 percent to 17 percent. Four providers (physicians and nurses) were trained and engaged in providing cessation counseling, provision of pharmacotherapy, and scheduling follow-up appointments with patients. Clinic staff also took the additional step of celebrating quits with patients, mailing out certificates and congratulating them when checking in for appointments. Patients that kept their regularly scheduled follow-up appointments were the most successful at quitting. Staff found that patients were most likely to attend their follow-up appointment if it was scheduled during their previous visit.

As a result of the pilot, tobacco use is now tracked as its own chronic condition at Big Lake in a way similar to hypertension or diabetes, which elevates tobacco use as a treatment priority. Due to the pilot project and dissemination of results within the CentraCare system, several providers and clinics approached Big Lake and the Tobacco Cessation Coordinator to see how they could implement a similar tobacco dependence treatment workflow at their own site.

## Challenges

Continuing to scale tobacco dependence treatment efforts, such as those implemented at Big Lake, across the system will require staff and leadership to maintain tobacco dependence treatment as a priority.

### Big Lake reduced their total patient tobacco use rate from 21 percent to 17 percent



Tobacco cessation display in the Big Lake Clinic



# Strategy 3: Improve Clinician Capacity to Deliver Evidence-Based Treatment

An informal assessment of clinician capacity found that many clinicians were uncertain of their role in the tobacco treatment process, including whether they had the skills or time to assist patients in quitting. Many clinicians also expressed wariness about referring their patients to external resources. Two types of training approaches were employed to improve clinician capacity and confidence to address tobacco use and expand treatment options within CentraCare.

## Incorporating Tobacco into Existing Trainings

The Medical Director, BHS facilitated integration of tobacco dependence-related content into a Substance Abuse and Mental Health Services Administration initiative aimed at integrating behavioral health into primary care. As part of this initiative, the Tobacco Cessation Coordinator worked with the Screening, Brief Intervention, and Referral to Treatment (SBIRT)<sup>12</sup> trainer to incorporate tobacco dependence treatment education into a two-day training entitled “Motivational Interviewing and SBIRT in Primary Care”. The training included tobacco-specific components of: tobacco use screening, treatment options, clinical practice guidelines,<sup>2</sup> off-label dosing of cessation medications, and e-cigarettes. Also included was a tutorial on the existing EPIC SmartSets that were available to providers using the CentraCare EHR. The SBIRT trainings were provided monthly between November 2014 and March 2015. The focus was on family practice clinics; however, clinicians outside of CentraCare were also invited to participate. About 170 clinicians and staff attended the trainings. Integrating tobacco into the SBIRT trainings served as a way to elevate the importance of addressing tobacco use while also providing practical tools for treating and referring patients to tobacco cessation resources.

## Tobacco Treatment Specialist Training

During the grant period, CentraCare supported training for a number of staff and clinicians to become Tobacco Treatment Specialists (TTS) through the Mayo Clinic’s Nicotine Dependence Center Tobacco Treatment Specialist Certification Program<sup>13</sup> as a way to build tobacco cessation treatment capacity within the health system. As a result of these training efforts, the total number of TTS within CentraCare more than doubled, from about 5 to 16.

CentraCare now has TTS-trained staff and clinicians spread throughout their service area, allowing them to reach rural areas that have disproportionately higher rates of tobacco use. Several of the new TTS are medical providers, who, through the training, have been inspired to become champions for tobacco treatment. Expanding the TTS workforce has been a key step to increasing the priority of tobacco cessation system-wide, increasing staff buy-in for systems changes, and expanding patient access to cessation services.

<sup>12</sup> SBIRT is an evidence-based practice used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs. <http://www.integration.samhsa.gov/clinical-practice/SBIRT>

<sup>13</sup> <http://www.mayo.edu/research/centers-programs/nicotine-dependence-center/education-program/tobacco-treatment-specialist-certification/tobacco-treatment-specialist-certification>



## Successes

The SBIRT trainings generated greater engagement on referral processes and increased conversations about tobacco treatment within clinics. In particular, the trainings sparked provider interest in motivational interviewing. Since the trainings, there has been an increase in use of motivational interviewing in clinical practice, especially with patients who are not yet ready to quit tobacco. Due to the high demand for training, CentraCare hired an additional Motivational Interviewing Trainer, thereby, doubling their capacity to train staff.

Having 16 TTS on staff means that there are now 16 champions for tobacco treatment in the health system. In addition to supporting patients directly with quitting, the TTS advocate for tobacco cessation with clinical staff through methods such as attending team huddles and utilizing process improvement lists.



## Challenges

While CentraCare resources were leveraged during the systems change grant period for staff and providers to attend TTS training, a lack of ongoing funding for TTS training is a barrier to further increasing health system capacity. At CentraCare, each department has an annual training budget; however, these funds are typically allocated to train staff and providers on the latest state and federal regulations. These needs take precedent to other training topics, such as tobacco, which presents a challenge for continuing TTS training.

Additionally, obtaining reimbursement for a provider's time spent delivering cessation counseling is a challenge. While there have been improvements, especially for those who are trained as TTS, gaps persist. Training nurses and advanced practice practitioners (such as Certified Nurse Practitioners), has helped to partially address this issue, since their time is more flexible.

**“The training of TTS at the provider level has been integral for improving utilization rates and the delivery of evidence-based treatment. Training sparks a personal commitment to drive change within the clinical setting. Peer to peer (provider to provider) training, referral coordination, mentoring, and ‘difficult’ case consultation have been occurring among TTS...within the department/clinical setting.”**

**- CentraCare staff member**

# Lessons Learned



## Leverage support from key decision makers

Identify champions, including executive leadership, early in the process. Invest time in expanding their understanding of tobacco's role in health improvement and clinical outcomes. This helps to elevate tobacco use screening and treatment as a priority within the health system.

## Educate and engage providers

Engaging providers in understanding the importance of regularly addressing patient tobacco use and their role in the process, as well as helping them obtain skills to address patient tobacco use, helped foster ownership for tobacco treatment among providers. As a result of this project, more providers are taking responsibility for addressing tobacco with their patients, rather than considering it someone else's responsibility.

## Cultivate clinic-level champions

Having internal champions within a clinic that can be actively involved in engaging both patients and other providers in the process is important. Through the systems change work, champions were fostered at the clinic level by having staff and providers become TTS certified. The training helped them bring new knowledge, skills, and enthusiasm for the work.

**"The past two years have been transformative for the number of engaged clinicians, the level of tobacco impact understanding, and a commitment to continue to improve and better our processes."**

**- CentraCare staff member**

## Engage all team members

Engagement of all staff and providers throughout the planning, implementation, and feedback stages of the pilot helped foster buy-in for implementing the new tobacco treatment protocol. It was motivating for staff and providers to know that their input was valued. Additionally, feedback provided on implementation of the new workflow, shortcomings, and successes helped motivate staff and providers to do more to improve when and how they addressed tobacco use with patients. All staff and providers were also involved in celebrating quit successes with patients. Together, these efforts helped maintain tobacco dependence treatment as a clinic priority.

## Link tobacco use to multiple system priorities

One of the keys to the project's success was their work to link tobacco use to multiple priorities within CentraCare. Inviting themselves to meetings with a large number of staff and leadership gave the systems change team opportunities to highlight how tobacco dependence treatment was tied to multiple chronic disease outcomes, inpatient readmission rates, the Triple Aim, and other clinic, departmental, and system-wide goals.

## Acknowledgements

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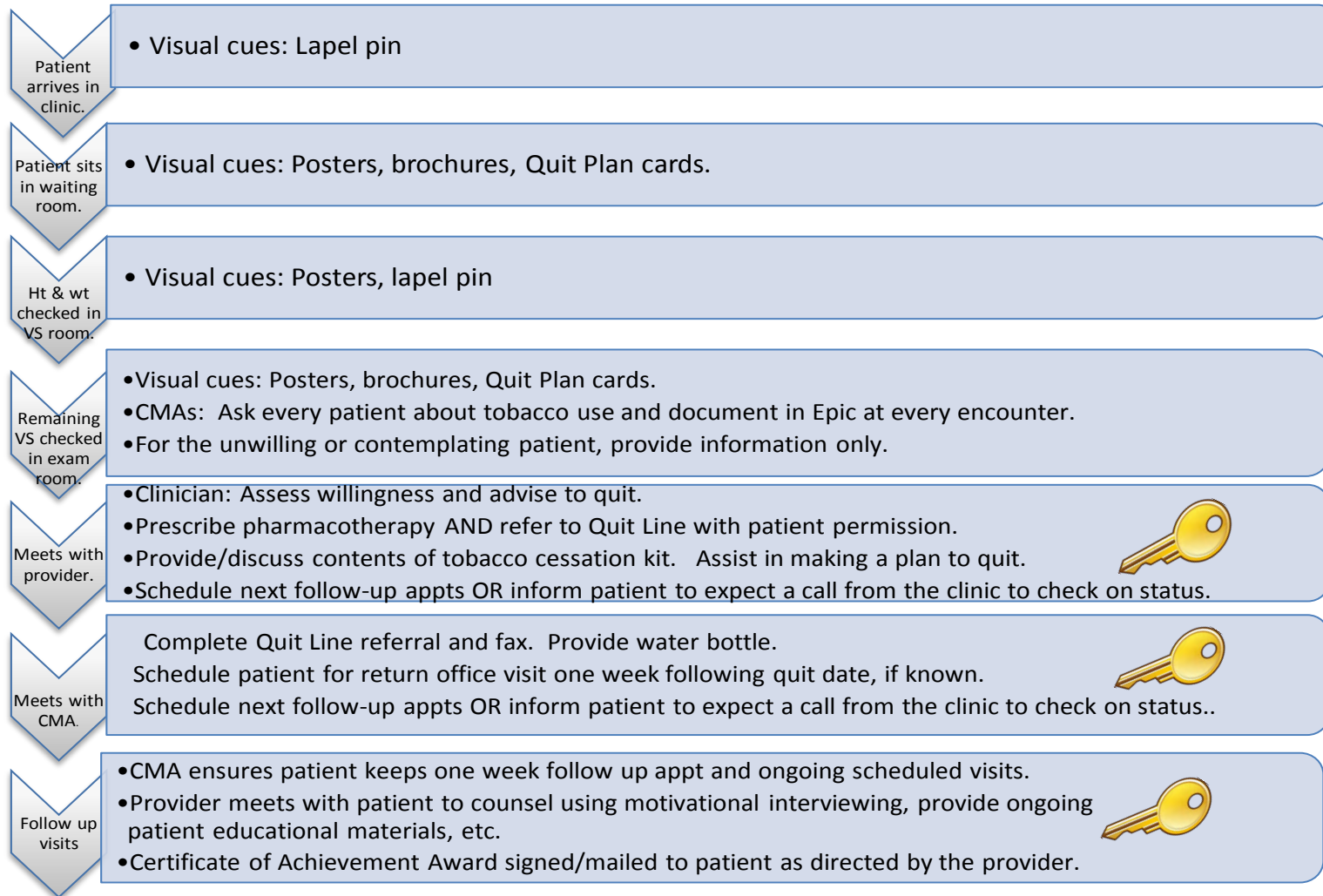


# Appendix

## 1. Big Lake Clinic Workflow (pilot)



# Workflow Implementation following Best Practices for Tobacco Cessation:



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