A Novel Approach to Addressing Tobacco Use Within a Safety-Net Dental Practice
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.\(^1,2\) 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.\(^3\)

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.\(^4\) Addressing tobacco use with patients aligns with the Triple Aim: it increases patient satisfaction with their health care\(^5\); helps patients quit, thereby improving their health\(^6\); and has a positive return on investment.\(^7\)

Background

Health Systems Change Project

Apple Tree Dental (Apple Tree) received a two-year grant award from ClearWay Minnesota\(^\text{SM}\) to implement health systems changes that would improve Apple Tree’s ability to address tobacco use among their patients. The project period was from May 1, 2015, to April 30, 2017. ClearWay Minnesota is an independent nonprofit organization working to improve the health of all Minnesotans by reducing the harm caused by tobacco.* 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 Apple Tree and lessons learned through their systems change work.

An electronic version of this case study can be found online at: [http://clearwaymn.org/policy/cessation-policy/](http://clearwaymn.org/policy/cessation-policy/)
Apple Tree Dental (Apple Tree) is a non-profit dental practice and critical access provider founded in 1985 to address the unmet dental needs of individuals living in Minnesota. Apple Tree has 190 employees, including 128 dental providers, six dental centers located throughout Minnesota, and provides onsite dental care at over 130 community sites. They primarily serve low-income children and families in rural and urban areas; veterans; adults with disabilities; minorities and new immigrants; persons living with mental illnesses; seniors living in long-term care, independent, and assisted living facilities; Head Start children; and group home residents.

Due to the populations Apple Tree serves, such as those with low income, mental illness, and veteran status, their patients have a higher tobacco use rate than the general population. Furthermore, tobacco users have a higher risk for serious dental conditions, such as periodontal disease and oral cancer. To address these issues, in late 2013, Apple Tree began to systematically record their patients’ smoking status in the electronic health record (EHR). However, the information they collected was limited. Apple Tree identified the need to expand their EHR capacity and implement a comprehensive approach for addressing patient tobacco use.

**Key Strategies**
- Develop Standard Operating Procedures and Workflow
- Integrate Tobacco Dependence Assessment and Intervention into the EHR System
- Implement System-Wide Training and Quality Improvement Processes
- Reach Out to Community Partners

**Systems Change Grant Goal**
Apple Tree’s goal for this grant was to prioritize tobacco dependence diagnosis and intervention and implement changes to support tobacco cessation across the system.

**Key Project Team Members**
- **Education and Quality Assurance Director:** Lead project, develop materials, train staff
- **Chief Operating Officer (COO):** Oversee project, report to executive team, train staff
- **Chief Executive Officer (CEO):** Provide project direction
- **Information Systems Director:** Implement EHR system changes
- **Center Representatives:** Support center staff on tobacco procedures
- **Director of Development and Marketing:** Oversee and administer project

* [www.appletreedental.org](http://www.appletreedental.org)
Strategy 1: Develop Standard Operating Procedures and Workflow

Before the grant, Apple Tree did not prioritize tobacco cessation on a system level. Although they could identify tobacco users in the EHR, there was no established process for talking with patients about quitting or referring them to treatment. Therefore, the executive team decided to make tobacco dependence diagnosis and intervention an organizational goal by forming a tobacco cessation team, standardizing processes, and creating educational materials.

Tobacco Cessation Team

Apple Tree created a tobacco cessation team that met monthly throughout the two-year grant period. The team consisted of leadership and a representative from each of the six dental centers (see Key Project Team Members on page 3). The CEO participated in tobacco cessation team meetings early in the grant period, and subsequently received regular updates on grant activities from the team. The tobacco cessation team oversaw all aspects of the systems change grant, including: developing and implementing standard tobacco intervention processes, defining staff roles, training staff, modifying the EHR system, creating patient materials, and monitoring data.

Standard Operating Procedures

The tobacco cessation team developed system-wide Standard Operating Procedures (SOPs), which emphasized using a team-based approach to address patient tobacco use (see Appendix 1). The SOPs instruct staff to conduct a tobacco use assessment with all patients age 13 and over, follow the Patient Encounter Flow Chart (see page 5), and use Apple Tree’s educational resources. Starting in May 2016, the SOPs were implemented at each center after an in-person, all-staff training (see page 10).

“I can’t imagine doing any of this without each and everybody on our team.”
- Education and Quality Assurance Director
Patient Encounter Flow Chart

Using the 5 A’s model of tobacco intervention (see Figure 1), the Patient Encounter Flow Chart guides staff through the patient interaction and associated steps in the EHR (see Appendix 2). The flow chart provides a sample script for staff to follow, with clear instructions for handling different patient responses. The workflow includes a readiness ruler integrated into the EHR, by which patients rate how ready they are to make a tobacco quit attempt. Referrals for treatment are provided to patients who feel ready to quit (i.e., quitline, primary care provider).

Patient Materials

The tobacco cessation team also created two educational handouts for patients. All tobacco-using patients are offered a two-sided handout that explains the harmful effects of tobacco on overall health and oral health, in particular (see Appendix 3). It includes graphic photos of mouths that have been negatively impacted by tobacco use. In addition, Apple Tree developed a one-page handout with a list of online resources to help patients quit tobacco (see Appendix 4). This handout is given to patients who express an interest in accessing online educational resources and/or quitting on their own.

Figure 1. 5 A’s Model of Tobacco Intervention
Successes

With the support of system leadership, Apple Tree created and sustained a dedicated tobacco cessation team. At the end of the grant, the team planned to continue meeting regularly to ensure that tobacco user identification and treatment referral remains a system priority. Much of Apple Tree’s success was facilitated by each team member’s commitment to the project goals. Having the CEO, COO, and Center Representatives involved in the team ensured that the work was supported and implemented at all levels across the system.

By mid-2016, all Apple Tree centers and mobile sites had implemented the new tobacco SOPs. This means that all staff were trained and provided with the appropriate tools (e.g., Patient Encounter Flow Chart, EHR changes, patient materials) to consistently address patients’ tobacco use. Staff reported few issues with following the SOPs, and overall, they were very receptive to the new processes. Patients also provided positive feedback on the educational materials. As of June 2017, 84 percent (range: 76-94 percent by center) of the approximately 26,500 patients seen system-wide in the past year had been assessed for tobacco use, revealing an average tobacco use rate of 23 percent (range: 17-30 percent by center). Through these efforts, Apple Tree identified and provided cessation support to around 2,600 tobacco-using patients in the last grant year.

Challenges

Tobacco cessation efforts are not common among dental practices, and there are very few standard processes for addressing tobacco use in a dental setting. Therefore, the tobacco cessation team spent a lot of time initially reviewing available tobacco cessation research, resources, and training to determine what would be most applicable for their providers, setting, and patients. After much dialogue, they decided on a specific approach, which involved developing many materials from scratch – again, requiring a time investment. After overcoming these initial barriers, Apple Tree encountered few additional challenges implementing their SOPs and new tobacco workflow.

Right: Apple Tree’s CEO presents on their tobacco system changes at the Special Care Dentistry Association Annual Session, April 2017.
Strategy 2: Integrate Tobacco Dependence Assessment and Intervention into the EHR System

Apple Tree determined a need for enhanced EHR capacity around tobacco. Specifically, they aimed to expand their existing tobacco assessment and add new features to assess the patient’s interest in quitting, provide education on the benefits of quitting, provide referrals to treatment, and follow up and document quit successes.

EHR Vendor Coordination

Apple Tree uses an open-source dental EHR software called Open Dental*. Open Dental frequently updates the functionality of its software to meet clients’ needs, and was willing to make changes to the tobacco assessment and interventions in the EHR per Apple Tree’s request. Once the tobacco cessation team decided which fields and features they wanted to add, Open Dental worked with Apple Tree’s Information Systems (IS) Director to implement these changes. Having an IS Director on staff and on the tobacco cessation team was important in facilitating EHR modification requests with the Open Dental software team.

EHR system changes were initially piloted in a beta phase, and the Apple Tree IS Director and Center Representatives tested the software to check for any usability or content issues. Each tester provided feedback on the changes, and Open Dental made modifications as appropriate. The new tobacco workflow was implemented system-wide at the same time as the SOPs.

Tobacco Use Assessment

In their existing EHR tobacco assessment, Open Dental changed the word “smoking” to “tobacco” to include a broader range of users (e.g., smokeless tobacco users) and added capability to record more than one assessment on the same day (e.g., chews and smokes tobacco). Open Dental simplified the process for choosing an appropriate tobacco assessment, as well as choosing and recording a cessation intervention (see page 8). They also added fields to record the duration of use and readiness to quit (see Appendix 5 for documentation details).

* [www.opendental.com](http://www.opendental.com)
Tobacco Interventions

As part of this project, Open Dental modified the tobacco cessation intervention window, making it more user-friendly to document interventions. They also added the ability to link a tobacco assessment status to an educational resource, which was previously only available for problems, medications, and allergies. After a patient is identified as a tobacco user, staff are prompted to print the educational handout on the harmful effects of tobacco use directly from the EHR and briefly review it with the patient. If the patient indicates they are ready to quit, staff offer three referral options:

- **Quitline**: Staff completes an electronic form in the EHR, prints, and faxes it to the quitline.

- **Primary Care Provider**: Staff prints a referral form (explaining that the patient is interested in quitting) from the EHR, and instructs the patient to bring it to their primary care provider.

- **Online Resources**: Staff prints a handout with online quit resources from the EHR.

Finally, if the patient accepts a referral, staff add a procedure code for “tobacco cessation follow-up” to the patient’s next appointment in the EHR. At the next appointment, staff are prompted to ask whether the patient has successfully quit, and record that information in the EHR. Then, staff enter a new tobacco assessment in the EHR and start the workflow over again. If the patient declines a referral, staff document that information in an EHR field that was added as part of this project.
Successes

Apple Tree greatly enhanced their EHR capacity to track and address tobacco use with patients. Through close collaboration with their EHR vendor, they met all project goals regarding EHR modification. Furthermore, because Open Dental is an open-source software, all Open Dental customers, not just Apple Tree, now have access to the new tobacco workflow. Open Dental implemented the changes in the form of two system upgrades, which are available to all customers. Thus, Apple Tree’s dedicated work around tobacco expands the EHR capacity of dental practices across the country.

Tracking the additional tobacco data has made it easier for Apple Tree to meet the Clinical Quality Measures and demonstrate Meaningful Use (MU) for the EHR Incentive Program*. To meet the Stage 2 MU requirements, dental providers must record both tobacco use status and an intervention.**

Challenges

Apple Tree faced a challenge integrating changes into the EHR software within the initial timeframe. Updates to the EHR system were delayed until March 2016. This provided a shorter period of time to test the software, and pushed back the timing for staff training and implementing the new SOPs. In the end, the tobacco cessation team overcame these challenges, and the training and implementation were only delayed by one month.

Additionally, two of the requested changes were not included in the first EHR upgrade, specifically, the fields for recording duration of tobacco use and readiness to quit. Therefore, Apple Tree was unable to verify that patients who were ready to quit were receiving a referral to treatment. A few months later, the next major upgrade was released, which included these fields, so Apple Tree had all the data they needed to determine whether staff were following the SOPs.

“Everyone on the tobacco cessation team pitched in to make all these activities happen in a seamless manner in a shorter time period than we had originally planned. In the end, it all worked out!”
- Apple Tree staff member

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* The Centers for Medicare and Medicaid Services established the EHR Incentive Program in 2011 to encourage health systems to implement and use EHR systems.

After establishing the new SOPs and modifying the EHR system, the tobacco cessation team needed to train staff and implement quality improvement processes to determine whether they were being utilized appropriately.

Staff Training
In May 2016, the tobacco cessation team conducted a training session at each center. All center staff were required to attend, and each training session lasted four hours. The trainings were led by the Education and Quality Assurance Director and the COO, and included tobacco education, role-playing, and walking through the SOPs. After monitoring the first few months of EHR data post-implementation, they identified several common documentation errors that needed to be addressed. Therefore, the tobacco cessation team conducted a refresher training in November 2016. In addition, since two new fields had been added to the EHR system after the initial training (see page 9), the team wanted to make sure staff were trained on these new fields. Staff feedback on both trainings was positive.

When new staff are hired, they are trained in all EHR procedures, which now include the tobacco workflow. New staff must complete a staff orientation training log, which documents that they received training on all procedures. Moreover, if staff encounter issues or need additional training, the Center Representatives are responsible for assisting them. Center Representatives may meet with staff one-on-one or as a team to address issues as needed.

Quality Improvement Processes
Apple Tree implemented quality improvement processes to monitor how well staff follow the tobacco SOPs. The IS Director periodically runs queries of the tobacco fields in the EHR system and reports the information to the tobacco cessation team. The reports are broken down by center (see Appendix 6), and include the following data:

- Number of tobacco assessments
- Number and percent of tobacco users
- Number of patients by readiness ruler score (1-10; score of 8-10 = ready to quit)
- Number of interventions by type (advice on harms of tobacco, cessation advice, referrals)
- Number of declined interventions
- Number of referrals by type (quitline, primary care provider, online resources)
- Number of follow-up assessments by type (successful vs. unsuccessful quit)
- Number and percent of patients assessed
Since the implementation of the new SOPs, between May 2016 and August 2017:
• 1,161 tobacco interventions were provided
• 274 referrals to cessation support were provided
• 3 patients reported quitting tobacco

Successes

Not only were all staff trained on the SOPs, but they received in-depth education on the harms of tobacco use. This motivated them to follow the SOPs and integrate tobacco assessment and intervention into their daily workflow. Soon after implementation, with the help of quality improvement monitoring, the tobacco cessation team was able to identify and address SOP and documentation errors with staff. This led to improved interactions with patients and higher quality tobacco data.

Overall, the data show that staff are following the SOPs and consistently addressing tobacco use with patients. The tobacco cessation team can relay this information back to the staff, which facilitates the work and keeps them motivated. Furthermore, Apple Tree is supporting the sustainability of this project by incorporating the tobacco protocols into their new employee orientation and training.

Challenges

Most of the challenges related to training and quality improvement processes were due to the delayed release of the EHR modifications (see page 9). In the time between implementation and the second EHR upgrade, staff were required to enter data on patient duration of use and readiness to quit in an open text field, which was inconvenient and could not be queried. However, this issue was only temporary.

Staff also encountered two minor challenges with EHR documentation. Initially, some staff were forgetting the follow-up step due to the length of time between training and seeing a patient at follow-up. Secondly, staff were incorrectly marking the “referral declined” button when a patient reported they were not ready to quit tobacco, rather than after they were offered a referral, per the SOPs. The tobacco cessation team quickly identified and resolved these issues through additional training.
Strategy 4: Reach Out to Community Partners

In addition to implementing changes at the dental centers, Apple Tree aimed to expand the reach of the new tobacco procedures to their community partners. The tobacco cessation team used a three-tiered approach to connect with their mobile sites: tobacco policy survey, targeted outreach, and tobacco resource letters.

Tobacco Policy Survey
First, the tobacco cessation team developed a six-question survey on tobacco use and cessation policies (see Appendix 7). They asked the Community Care Coordinator at each dental center to call their associated mobile sites and conduct the assessment with a staff member who would be knowledgeable on these topics (e.g., Director of Nursing, Clinical Administrator), excluding sites that only served children. They sent emails to sites that were not reachable by phone. The Community Care Coordinators recorded survey responses on a form located on Apple Tree’s intranet, which the tobacco cessation team compiled and analyzed.

Targeted Outreach
Using the survey data, the tobacco cessation team identified two nursing homes with high tobacco use rates. Center Representatives met in-person with staff at each nursing home and discussed Apple Tree’s tobacco SOPs and educational materials. They also offered to conduct an in-service training with the nursing home staff about their tobacco cessation efforts and the harmful effects of tobacco use. Neither site was interested in receiving training at that time, but both expressed interest in and received Apple Tree’s patient education materials.

Tobacco Resource Letters
Lastly, the tobacco cessation team sent letters to all 44 community sites that reported that they allowed smoking inside or outside their facility. Letters included information about Apple Tree’s tobacco SOPs, patient education materials, online resources, and an example quitline fax referral form.
Successes

Apple Tree successfully reached and conducted a tobacco policy survey with 86 out of 100 community partner sites. They obtained useful information about tobacco use and cessation policies at these sites, and identified specific sites and patients with the greatest tobacco cessation needs. The tobacco cessation team was then able to provide cessation resources to sites that needed the most support.

Challenges

Apple Tree has limited influence to motivate community sites to implement tobacco policies or procedural changes. Some sites were very engaged and motivated to address tobacco, while others were not. This may be due to the size of the organization, leadership priorities, or staff capacity and turnover. Apple Tree plans to expand their tobacco cessation work with community sites based on responses they receive from their outreach letters.
Lessons Learned

Involve leadership
Multiple members of Apple Tree’s leadership team, including the CEO and COO, were actively involved in the systems change project. Their direction and dedication ensured that the tobacco changes were implemented and sustained system-wide. In involving leadership, the tobacco cessation team communicated to staff the importance of the system changes, which increased their motivation to adhere to the new tobacco protocols. Without leadership support, the tobacco cessation team may not have met all their goals within the two-year grant period.

Leverage Information Systems (IS) staff
Having an IS Director on staff and as a member of the tobacco cessation team greatly facilitated the system changes. They provided valuable expertise to the tobacco cessation team, interfaced with the software developers, and ensured that the desired EHR system changes and reporting capabilities were integrated and implemented as intended.

Be flexible
When conducting a systems change project, it is important to be flexible. There are often project delays that are out of the team’s control, especially when working with an outside entity (i.e., EHR vendor). This can impact other aspects of the project, such as staff training, and lead to delays with implementation. Project staff must be patient and open to timeline adjustments to account for the many players involved in the system changes.

Use a team-based approach
Apple Tree learned that addressing tobacco use in a dental practice setting requires the involvement of all care team members. Originally envisioned as primarily the hygienist’s role, they quickly determined that all levels of staff should be trained and involved in implementing the tobacco protocols so as to share the responsibility across the care team. Integrating tobacco use assessment and intervention into the EHR provided all care team members with the ability to take on this role if necessary.

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“Every one of us has forever changed the way we look at tobacco. It’s not somebody else’s problem anymore...It’s not just for medical offices.”
- Education and Quality Assurance Director
References


Appendix

1. Standard Operating Procedures
2. Patient Encounter Flow Chart
3. Tobacco Users Guide: Health Effects and Benefits to Quitting
4. Online Resources
5. Open Dental Tobacco EHR Documentation
6. Tobacco Report Template
7. Tobacco Policy Survey
INTRODUCTION:
All DDS/DMD, ADT/DT, DH and DA employees will work together in achieving a team approach to a) determine the tobacco use status of Apple Tree patients, b) offer tobacco cessation education to those who use tobacco, c) assess patients’ interest in quitting, d) assist patients with cessation referrals and on-line quit resources, and e) arrange a follow-up with patients about their quit attempt. Teamwork and consistency will be necessary and expected.

GENERAL INFORMATION ABOUT OUR SOPs:

1. We will not be asking patients about their use of e-cigarettes.
2. We will not engage in direct tobacco cessation interventions with patients such as cessation counseling, prescribing tobacco cessation medications such as nicotine replacement drugs, etc.
3. We will conduct a Tobacco Use Assessment on all patients age 13 years and older at their first examination (IE) appointment, or as soon after the IE appointment as possible; and at all future recall appointments.
   a. After the initial assessment of tobacco use: If, at subsequent recall visits, the patient’s use of tobacco has not changed, clinical employees will not need to record a new assessment in the EHR. However, at recall appointments of patients continuing to use tobacco products, the clinical staff should proceed with the 5 A’s Model for Tobacco Cessation and do the appropriate documentation in the EHR. Refer to #4 and #5 below.
4. We will be using the 5 A’s Model for Tobacco Cessation. This Model involves the following steps:
   a. Ask patients about tobacco use.
   b. Advise patients to quit.
   c. Assess patients’ interest in quitting tobacco use now using the Readiness Ruler (RR) scale.
   d. Assist patients who are ready to make a quit attempt (those with a RR value of 8, 9 or 10!) by offering a tobacco cessation referral.
   e. Arrange for patient follow-up (for those making a quit attempt) to determine the status of the quit attempt.
      For detailed information on using the 5A’s Model, refer to the flow chart described in #5 below.
5. Clinical employees will follow the Tobacco Cessation Patient Encounter Flow Chart to:
   a. Master the 5A’s model
   b. Develop a patient communication and education approach to tobacco-using patients
   c. Learn how to document pertinent tobacco use data in our EHR
      • Over time, clinical employees will master the 5 A’s process well and will only have to refer to the flow chart as needed.
      • Revisions to the Tobacco Cessation Patient Encounter Flow Chart will be based on need and made available to the clinical employees. In addition, employees will be informed about any protocol changes with appropriate training.
      • New clinical employees will receive the necessary training upon hire so they learn and master our protocols quickly.
6. We will have two educational resources for tobacco using patients
   a. Tobacco Users Guide: Health Effects & Benefits to Quitting
   b. Tobacco Users Guide: Online Resources & Informative Links (this document also serves as a referral option)
7. We will define tobacco use in general terms as follows:
   a. Occasional = at social events, etc. but not daily
   b. Light = less than a pack (or snuff can) per day
   c. Heavy = at or exceeding a pack (or snuff can) per day
**INTRODUCTION:**
"Apple Tree is now putting more emphasis on assessing patients’ current and past use of tobacco products, so first, I’ll ask you about tobacco use."

**PREPARATION:**
Open the Tobacco Use Window.  
*Note: If the previous assessment was the same, you do not need to record a new assessment.*

<table>
<thead>
<tr>
<th>5-A’s Model</th>
<th>Sample Dialogue</th>
<th>Open Dental Documentation</th>
<th>NEXT ACTIONS</th>
</tr>
</thead>
</table>
| A1 - ASK    | Q1. “Do you currently use any tobacco products?”  
If the patient answers “NO” →  
Q2. “Have you ever used any tobacco products?”  
If “YES” to Q1, proceed to Questions #3-4 ↓  
Q3. “How much tobacco do you use per day, and what type(s) of tobacco do you use?” (i.e. # of cigarettes, cigars, chewing tobacco, etc.)  
Q4. “What month/year did you start using tobacco?” (To determine the duration of tobacco use) ➔ | Choose either “Never smoked tobacco” or “Ex-smoker” from the top drop-down list. ➔ | Proceed to A1 ↓ |
| A2 - ADVISE | **EDUCATIONAL RESOURCES LINK:** Open the EHR tab, click on the Education Measure to open the Educ. Resources window. Right click on the link to the “Tobacco Users Guide” to access and print the "TOBACCO USERS GUIDE: Health Effects & Benefits to Quitting" (If you’re giving the Pt. a preprinted copy, immediately click “cancel” after you click on the “Print” tab!)  
Briefly go over the content of the user’s guide with the patient! ➔ | Proceed to A3 ↓ |
| A3 - ASSESS | **READINESS RULER QUESTION:**  
Q5. “To determine your thoughts about quitting tobacco use, I will now ask:”  
"On a scale of 1 to 10, with 1 indicating ‘no desire to quit,’ and 10 being ‘ready to quit tobacco use TODAY,’ where are you in your desire to quit now?”  
If the Pt. answered Q5 with 7 or less, say:  
“Based on your readiness response of ____ (1-7), you’re not quite ready to make a quit attempt now. I know the idea of quitting can be overwhelming. Please take the info sheet with you and review it further. At your next hygiene appt., we can revisit your tobacco use and your interest in quitting!” ➔  
If the Pt. answered Q5 with 8 or higher:  
Continue on Page 2 with A4 “ASSIST”! | In the Readiness Ruler Field, enter the Pt.’s response 1, 2, 3, 4, 5, 6, or 7 ➔ | Proceed to A2 ↓  
At recalls, repeat A1  
Proceed to A2 etc., if indicated.  
At recalls, repeat A1  
Proceed to A4 ↓ |
# Tobacco Cessation Patient Encounter Flow Chart

## A4 – Assist

**Offering Referral Options:**

“Based on your readiness response of _ (8-10), it appears you are now ready to make a quit attempt! I have three referral and/or support options you can choose from to assist you in your quit attempt. These options are:”

1. “Call it Quits” Referral for counseling & support (no cost);
2. Referral to your/a MD for meds, other interventions;
3. Tobacco Cessation Online Resources handout

**Q6. “What referral/support option do you prefer?”**

If the patient **“Declines a Referral”**

“Ok, perhaps you’re not ready now to make a quit attempt. At your next hygiene appointment, we can revisit this!”

Open the Tobacco Use window. In the Intervention Drop-down list, choose “Referral to stop-smoking clinic,” check the “Pt. Declined” box and then click “Add Intervention.”

- **At recalls, repeat A1**
- **Proceed to A2 etc., if indicated.**

If the patient **“Accepts a Referral”**

“That’s great! I’ll prepare the referral for you. At your next hygiene appointment, we will ask you about your quit progress. I wish you great success!”

Then instruct the patient according to what option he/she chooses:

If to “Call it Quits” “You will receive a call from someone from your health insurance’s ‘Call it Quits’ program soon. Notify us if you are not called within 2 weeks.”

If to the Pt.’s MD or a MD “Take this referral and contact your MD (or an MD in your insurance network) and make an appointment to discuss quit strategies and options available to you.”

If the Online Resources “Here’s the Online Resources guide. This will be helpful in your quit attempt.”

Open the Tobacco Use window. In the Intervention Drop-down list choose either:

1) “Referral to stop-smoking clinic” if a “Call it Quits” or “MD” referral was chosen - OR -
2) “Smoking cessation education” if the “Online Resources” referral was chosen. Then click “Add Intervention”.

- **Proceed to A5 at the next recall or the next appt.**

## A5 – Arrange Follow-up

**At a Future Scheduled Appointment:**

Q7: “How are you doing with your tobacco quit attempt? Were you successful in quitting?”

If the patient responded **“YES”**

“Congratulations! That’s great. What was most helpful to your success? How did you succeed? How long did it take? How are you doing now without using tobacco?”

- **At recalls, repeat A1**
- **Proceed to A2 etc., if indicated.**

If the patient responded **“NO”**

“I can appreciate how difficult it is to quit using tobacco. What were the challenges you encountered? Did you use the referral resources we provided you? If not, why?”

**Going Back to Step A1, Question #3:** “Today, what kind and how much tobacco do you use per day? Is there anything more I can do to facilitate your quit attempt (Advise A2), or are you not ready?” (Assess A3) etc.

- **Today repeat A1**
- **Proceed to A2 etc., if indicated based on the Pt.’s answers at left.**
INTRODUCTION:
“Apple Tree is now putting more emphasis on assessing patients’ current and past use of tobacco products, so first, I’ll ask you about tobacco use.”

A1 - ASK
Q1. “Do you currently use any tobacco products?”

A1 – ASK (cont.)
Q3. “How much tobacco do you use per day, and what type(s) of tobacco do you use?” (i.e. # of cigarettes, cigars, chewing tobacco, etc.)
Q4. “What month/year did you start using tobacco?” (To determine the duration of tobacco use)
In OD, open the Tobacco Use window - choose the most appropriate tobacco use status from the frequent or user dropdown lists, then click the “Add Assessment” button. Double-click the assessment and enter the approx. Tobacco Use Start Date (i.e. 01/01/1986) to automatically calculate duration.

Note: If the previous assessment was the same, you do not need to record a new assessment.

A3 - ASSESS \ READINESS RULER QUESTION:
Q5. “To determine your thoughts about quitting tobacco use, I will now ask:” “On a scale of 1 to 10, with 1 indicating ‘no desire to quit,’ and 10 being ‘ready to quit tobacco use TODAY,’ where are you in your desire to quit now?”
In OD, open the Assessment history and double click the saved Assessment to record the patient’s readiness to quit “1-10” response in the Tobacco Use Desire to Quit field.
(Readiness Ruler 1-10 Scale)

A4 - ASSIST
“Based on your readiness response of _____ (1-7), you’re not quite ready to make a quit attempt now. I know the idea of quitting can be overwhelming. Please take the info sheet with you and study the information further. At your next hygiene appointment, we can revisit your tobacco use and your interest in quitting!”

“Based on your readiness response of _____ (8-10), it appears you are now ready to make a quit attempt! I have three referral and/or support options you can choose from to assist you in your quit attempt. These options are:”
1. “Call it Quits” Referral for counseling & support (no cost);
2. Referral to your/a MD for meds, other interventions;
3. Tobacco Cessation Online Resources handout

(continue on page 2)
A4 - ASSIST (cont. from page 1)
Q6. “What referral/support option do you prefer?”

“Ok, perhaps you’re not ready now to make a quit attempt. At your next hygiene appointment we can revisit this!”

In OD, open the Tobacco Use window. In the Intervention Drop-down list, choose “Referral to stop-smoking clinic,” check the “Pt. Declined” box and then click “Add Intervention.”

Then instruct the patient according to what option he/she chooses:

If to “Call It Quits” “You will receive a call from someone from your health insurance’s ‘Call It Quits’ program soon. Notify us if you are not called within 2 weeks.”

If to the Pt.’s MD or a MD “Take this referral and contact your MD (or an MD in your insurance network) and make an appointment to discuss quit strategies and options available to you.”

If the Online Resources “Here’s the Online Resources guide. This will be helpful in your quit attempt.”

A5 – ARRANGE Follow-up
AT A FUTURE SCHEDULED APPOINTMENT:
Q7. “How are you doing with your tobacco quit attempt? Were you successful in quitting?”

Verify that the “Tobacco Cessation Follow-Up” (TCF) procedure code is attached to today’s appointment.

“Congratulations! That’s great. What was most helpful to your success? How did you succeed? How long did it take? How are you doing now without using tobacco?”

In Open Dental:

a. Edit the “Tobacco Cessation Follow-Up” (TCF) code, select the diagnosis code “TCR Successful”

b. Add a new Tobacco Assessment status “Ex-smoker” or other non-user status code.
1. The Harmful Effects of Tobacco Use

A. Did you know that . . .?

- Cigarettes have more than 600 ingredients; when burned, they create more than 7,000 chemicals, 69 of which are known to cause cancer and many are poisonous!
- Smoking causes one in five deaths (nearly 500,000/year) in the U.S.
- Smoking deaths per year are more than the combined causes from HIV/AIDS, illegal drugs, alcohol use, motor vehicle injuries and firearm-related injuries.
- Second-hand smoke causes over 40,000 deaths annually in the U.S.

Tobacco smoke contains harmful chemicals!

- Methanol – in rocket fuel
- Nicotine – an insecticide
- Radon – a radioactive gas
- Methane – an insecticide
- Arsenic – in rat poison
- Butane – in lighter fluid
- Cadmium – in batteries
- DDT – banned insecticide
- Formaldehyde – embalming fluid
- Carbon Monoxide – in car exhaust
- Benzene – in car exhaust fumes
- Toluene – an industrial solvent
- Hydrogen cyanide – a poison
- Ammonia – a cleaning agent
- Acetone – in paint stripper
- Hexamine – in lighter fluid

These are just a few of the harmful chemicals in tobacco smoke!

Drawing courtesy of Teresa E Johnson, DDS

B. General Health Effects & Risks of Smoking

Additional Health Effects

- Premature Death
- Type 2 Diabetes Mellitus
- Decreased Immune Function
- Delayed wound healing
- Decreased bone health, weaker
- Rheumatoid arthritis
- Premature hair loss and graying
- Premature skin wrinkles
- Body odor
- Taste & smell disturbances and alterations
- High blood pressure
- Coughing, shortness of breath, increased mucous production
- Men: Erectile dysfunction, reduced sperm count, abnormal sperm cells, increased risk of birth defects
- Women: Increased risk of pregnancy complications such as preterm delivery, low birth-weight, stillbirth, SIDS

Cancers of the: mouth and throat, esophagus, trachea, bronchus, lung, liver, stomach, pancreas, kidney and ureter, bladder, colon, rectum, cervix, and acute myeloid leukemia.

Chronic Diseases such as: periodontal disease, stroke, blindness, cataracts, coronary heart disease, aortic aneurysm, peripheral vascular disease, pneumonia, asthma, bronchitis, emphysema, hip fracture, and reproductive effects in women, including reduced fertility.

Diseases Caused by Second-Hand Smoke: Sudden Infant Death Syndrome (SIDS), respiratory symptoms, impaired lung function, lower respiratory illness, lung cancer, coronary heart disease, low birth weight, nasal irritation, middle ear disease.


This guide was made by Apple Tree Dental, Coon Rapids, MN on January 2017 with the support of a Health Systems Change Grant from ClearWay Minnesota.
C. Oral (Mouth) Adverse Consequences & Risks of Smoking and Chewing Tobacco

Effects to Teeth & Gums
- Brown staining of teeth
- Inflamed gums (gingivitis)
- Receding gums (exposing roots)
- Periodontal disease and loose teeth, premature tooth loss
- Tooth decay, premature tooth loss

Cancer & Pre-Cancer Conditions
- Cancers of the lip, tongue, floor of mouth, gums, other mouth areas
- Thickening of the soft tissues = white patches “leukoplakia” or “hyperkeratosis,” both potentially pre-cancerous changes

Other Effects in the Mouth
- Bad Breath & Altered taste
- Nicotine Stomatitis (“smoker’s palate”) – palate tissue thickens = keratosis
- Black Hair tongue
- Delayed healing in the mouth

2. The Great Benefits of Quitting Tobacco Use!

Short Term Benefits of Quitting
- **Within 20 Minutes:** blood pressure lowers, heartbeat stabilizes, and hands & feet temperature return to normal
- **Within 8 Hours:** blood levels of carbon monoxide and oxygen return to normal, and mucous begins to clear in the lungs
- **Within 24 Hours:** risk of a heart attack decreases
- **Within 48 Hours:** improved sense of taste and smell, and nerve endings begin to repair
- **Within 3 Months:** improved circulation, breathing & immune system; and walking and physical activity become easier to do.

Long Term Benefits of Quitting
- **Within 1 Year:** risk of coronary heart disease is halved to that of a smoker; coughing, fatigue and shortness of breath decrease; better able to handle mucous
- **Within 5 Years:** risk of stroke reduced to that of a person who never smoked
- **Within 10 Years:** lung cancer risk decreases to half that of a current smoker; decreased risk of mouth, throat, esophagus, bladder, kidney and pancreas problems/cancers
- **Within 15 years:** risk of coronary heart disease and risk of death becomes similar to that of a person who has never smoked

Overall Rewards & Benefits of Quitting
- Improved Health & Sense of Well-being
- Feel better physically, and about oneself; improved self-esteem
- Perform better in physical activities and on the job (work) and at home
- Food tastes better (improved taste, smell)
- Improved appearance (such as reduced wrinkling/aging of skin, whiter teeth)
- Have healthier babies and children
- Set a good example for children, lessening their likelihood of beginning tobacco use
- Home, car, clothing, self will smell better
- Save significant money
- No inconvenience in finding a place to smoke (at work, out in public, at home)


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TOBACCO USERS GUIDE: ONLINE RESOURCES & INFORMATIVE LINKS

Valuable Information For When You Are Ready To Quit!

1. QUITPLAN® Services
   
   [www.quitplan.com](http://www.quitplan.com)
   - Free resources and services – you pick the ones that are right for you!
   - Individual QUITPLAN Services include: Test Messaging, Email Program, Quit Guide, Starter Kit, and Helpline
   - Includes a Quit Smoking Calculator, and information on the benefits of counseling, and quit medications.
   - Access answers to frequently asked questions.

2. Smokefree (US Dept. of Health and Human Services)
   
   [www.smokefree.gov](http://www.smokefree.gov)
   - 18 ways smoking affects your health
   - Manage your Mood (10 ways to cope with emotions without cigarettes & how to manage cravings)
   - Quit with Text message and mobile app support
   - Build your quit plan* (steps to quitting)
   
   *Quitting is tough, however being prepared boosts your chances of success. Build a personal quit plan to get ready and find out what to expect along the way. Complete seven easy steps to get your personalized plan including the option to download, print, and/or add your quit plan to your online calendar.

3. Surgeon General’s Office (US Dept. of Health and Human Services)
   
   - Fact Sheets
   - Video and Podcasts
     (i.e., Tips from former smokers, Smoking and its effects on your body, When smoking affects your family)
   - Free, easy-to-read, illustrated booklet designed to give concerned adults information to help them make choices that will improve their own health and the health of their children, their families, and their communities.

4. American Dental Association
   
   - SEARCH: Smoking and Tobacco

5. Centers for Disease Control
   
   - Guide for quitting smoking
   - Real stories videos
   - Tips from former smokers
   - Free Quite Guide Mobile App
   - Smoke Free Texts
   - Hear the real stories of people living with smoking-related diseases and disabilities
   - Learn how smoking affects illnesses and conditions
   - Learn more about how smoking and secondhand smoke affect specific groups
   - View videos from the Tips campaign

August 31, 2016 Version
Assess Tobacco Use and Document Interventions

Smoking status, tobacco use, and documented interventions affect Clinical Quality Measures (CQMs) in EHR Modified Stage 2.

There are three ways to open the Tobacco Use tab:
1. Double-click in the Patient Info Medical Area of the Chart module, then click the Tobacco Use tab.
2. Double-click the Tobacco Use row in the Chart module, Patient Info medical area. To add this row to the Patient Info area, in Display Fields, add 'Tobacco Use' to Chart Patient Information.
3. On the EHR Dashboard, click EHR smoking status.

A history of the patient’s smoking status, tobacco use, and interventions show on the right.

**Current Smoking Status**
This status affects the percentage calculation for EHR Smoking Status. Click the dropdown to select the patient’s current smoking status. The available options are based on SNOMED CT codes. If ‘none’ is the selection, the status will not be counted in the numerator. Only one status selection per day will be added to the Assessment History.

**Tobacco Use Screening and Cessation Intervention (CQM)**
Document information for CQM #138 (Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention). This CQM calculates how many patients 18 years and older are assessed as ‘tobacco user’ and also receive a cessation counseling intervention.

**Tobacco Use Assessment**: Assess the patient’s tobacco use. The date defaults to today’s date.
1. Select the Assessment Type option that best describes the question asked to the patient. There are three options:
   - History of tobacco use Narrative
   - Have you used tobacco in the last 30 days SAMH
   - Have you used smokeless tobacco product in the last 30 days SAMH
2. (Optional) Select a Filter Status By option to filter the Tobacco Status list.
   - All = all statuses
   - User = status options for tobacco users
   - Non-User = status options for non-tobacco users
   - Frequent = status options used most often
3. Click the Tobacco Status dropdown to select the patient’s current tobacco status. The available options are based on SNOMED CT codes. To select a different code, select ‘Choose from all SNOMED CT codes’. If you use a code that is not recommended CQMs percentages may be affected.
4. Click Add Assessment. A log entry for today’s date will be added to the Assessment History. Multiple entries can be added for the same day.

To edit an assessment date, enter notes, document tobacco use start date, or rate desire to quit, double-click an Assessment History log entry.
The following items can be changed:
- Date Time
- More information about the event: Any relevant notes.
- Tobacco Use Start Date: The date when the patient started using tobacco (MM/DD/YY). Open Dental will automatically calculate the duration.
- Tobacco Use Desire to Quit: Rate the patient’s desire to quit using tobacco on a scale of 1 - 10. Informational only.

Cessation Intervention: If patient is assessed as a tobacco user, document an Intervention. The date defaults to today’s date.
1. (optional) Select a Filter Codes by option to filter the Intervention Code list.
   - All = all interventions
   - User = interventions for tobacco users
   - Non-User = interventions for non-tobacco users
   - Frequent = interventions used most often
2. Click the Intervention Code dropdown to select the intervention.
3. Patient Declined: Check to indicate a patient is declining the intervention (optional). This is informational only. Declined interventions still count in CQMs.
4. Click Add Intervention to add a log entry to Intervention History. If you select a medication, the Medication for Patient window will open so you can enter instructions and start date. The medication will be added to the patient’s Medication List.

To edit an intervention’s date or patient declined status, enter notes, or delete an intervention, double click the intervention under Intervention History. The documented intervention will be highlighted in the list.
<table>
<thead>
<tr>
<th>Tobacco Intervention Reporting by Clinic</th>
<th>Clinic 1</th>
<th>Clinic 2</th>
<th>Clinic 3</th>
<th>Clinic 4</th>
<th>Clinic 5</th>
<th>Clinic 6</th>
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Date range used is:
September 30, 2016

Dear Community Care Coordinators,

As you are aware, Apple Tree’s tobacco cessation program is supported by a ClearWay Minnesota grant. We still have a couple activities to complete to meet our grant obligations, and one of these activities will require some help from you. Please read the information below for all the details. Thank you in advance for your time and commitment to this grant activity; the entire Tobacco Cessation Team deeply appreciates your efforts!

Karen and Dr. Teresa

1. Activity Description
   Please contact the nursing homes, group homes, and assisted living facilities associated with your Center’s Mobile Program and ask six (6) questions. These questions focus on tobacco policies and tobacco use status of residents/clients.

2. Directions for Community Care Coordinators:
   a. Before February 1, 2017, please contact each nursing home, group home, or assisted living facility that is associated with your Center’s mobile program to inquire about their tobacco policies. (There are 72 facilities for CR, 16 for RO and 12 for HA.)
   b. Ask to speak with a community health nurse, infection control nurse, director of nursing, clinical administrator, or other appropriate employee who would be best positioned to answer a few questions regarding their facility’s tobacco policies.
   c. If you are asked why these questions are necessary tell them the following:
      - Regarding Tobacco: “We developed a Tobacco Cessation Program at Apple Tree and the information obtained will help us identify facilities with whom we may work to promote tobacco cessation.
   d. Convey to the person you speak to that the information obtained will remain confidential.
   e. If you have questions, contact Dr. Teresa at tjohnson@appletreedental.org or 507-382-4830.
   f. When you have completed this work, please notify Dr. Teresa!

3. The Questions, Where to locate them, and How to Record Answers:
   a. The six questions are on a custom list on ATD’s Intranet along with the facilities’ information (name, address, phone, dental liaison and DON.) You can find the six questions on the next page.
   c. A link to the custom list can be found on the home page of the intranet site – left hand side, on the bottom.
   d. Once you click on the name of a facility and then click the “Edit Item” button on the top, you can fill in the answers during your call to each facility. You need to type in the answers. Please check this out!
   e. If you have any specific questions about this custom list, please contact Brenda Prosa.

Refer to the next page for the list of questions you will be asking!
The Tobacco-Related Questions

1. Do you allow residents/clients/staff to use tobacco products on site?
   a. Yes
   b. No

2. Do you have designated places for smokers?
   a. Yes
   b. No

3. Where are your designated smoking locations/spaces?
   a. None (no designated smoking areas)
   b. Outdoor
   c. Indoor
   d. Outdoor and indoor

4. Approximately what percentage of your residents use tobacco?
   a. 0%
   b. 25%
   c. 50%
   d. 75%
   e. 100%
   f. Other___________

5. Have you implemented a tobacco cessation program?
   a. Yes
   b. No

6. Do you routinely ask your residents who use tobacco if they are interested in quitting tobacco use?
   a. Yes
   b. No