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Improving Tobacco Cessation Counseling Documentation in the Primary Care Setting

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Improving Tobacco Cessation Counseling Documentation in the Primary Care Setting

Submitted in Partial Fulfilment of the Requirements for the Degree of Doctor of Nursing
Practice at the University of Kentucky

By

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Lexington, KY

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Abstract

BACKGROUND: Tobacco cessation counseling and documentation of the counseling is insufficient in many primary care settings across the United States. This can lead to care gaps such as missed opportunities for interventions appropriate to the level of readiness for change with regard to tobacco cessation. In addition, there is a potential for loss of revenue due to missed opportunities to provide a service and/or not capturing the service when provided. The Medicare Access and CHIP Reauthorization Act (MACRA) in 2015 started a new payment approach known as the merit-based incentive payment system (MIPS) which identified tobacco screening and cessation intervention as a Quality Payment Program (QPP) measure.

One family medicine clinic in central Kentucky noted low rates of documentation of smoking cessation counseling and chose this as one of six quality measures to improve. Previous work revealed a root cause of the problem was providers not knowing how and where to document smoking cessation counseling. Initial efforts to address this knowledge deficit occurred until the healthcare enterprise changed the EHR systems which altered the process of smoking cessation documentation. The clinic leadership team requested the principal investigator of this study lead the evaluation of changes in tobacco cessation counseling documentation after implementation of the new EHR.

PURPOSE: The purpose of this project was to evaluate the effect of an EHR change from Allscripts to Epic on tobacco cessation counseling documentation among primary care providers at a central KY family medicine clinic.

METHODS: This project was a single-center quality improvement project conducted from October 2020 to October 2021. The project was guided by the FOCUS-PDSA model for improvement. The focus of this paper is on PDSA cycle three, conducted from May 2021 until October 2021. Four randomly selected providers from the previous PDSA cycles were

evaluated via chart review on frequencies of tobacco screening and counseling, and billing information using one of four approved documentation methods needed to meet the quality metric for tobacco screening and counseling.

RESULTS: PDSA cycle three had a significant increase in tobacco screening and cessation counseling documentation across all PDSA time periods from October 2020 to October 2021 ($F=37.7$, $p<0.001$). The greatest increase in tobacco screening and cessation documentation performance rates was in September 2021 with the change to Epic software ($p<0.0001$).

Facilitators to documentation in Epic include visual cues, tobacco screening completed during the rooming process, smart phrases within the note, and only one counseling button. This alleviated documentation demands compared to Allscripts. Although there were no hard stops in Epic, the easier flow of documentation appeared to lead to improved documentation among primary care providers. One unintended consequence was the decrease in billing for tobacco cessation counseling after the removal of the billable counseling button. The decrease in billing needs to be evaluated further and addressed in future quality improvement work in the clinic.

CONCLUSIONS: An EHR change to Epic improved tobacco cessation counseling documentation performance rates among all providers in the central KY clinic. Future investigation should include a more robust evaluation of performance rates over a longer period of time, and include evaluation of billable counseling rates and smart phrases usage specifically in primary care provider notes.

Keywords: cessation documentation, counseling, tobacco, primary care, and tobacco documentation

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Dedication

I would like to dedicate this project to my husband Paul Raymond Roher III. He has been my constant support that has never stopped encouraging me from when my nursing career began as a certified nursing assistant through a doctoral degree, he has helped me reach my dreams. I would also like to dedicate this to my daughter Kinsley Roher. She has been the best study buddy I could have asked for with her endless medical questions, and positivity telling me I can do it. I love you both more than you will ever know.

Table of Contents

Acknowledgements.....	4
Dedication.....	5
Introduction.....	9
Background.....	9
Purpose.....	14
Specific Aims.....	14
Theoretical Framework.....	14
FOCUS-PDSA Model.....	14
Literature Review.....	16
Synthesis of Evidence.....	17
Knowledge Gap.....	19
Methods.....	19
Description of Previous Work.....	19
PDSA Cycle One.....	20
PDSA Cycle Two.....	21
Design.....	22
Setting.....	22
Agency Description.....	22
Agency’s Mission and Project Alignment.....	22
Stakeholders.....	23
Sample.....	23

IRB Approval	25
Procedure.....	25
Data Collection.....	25
Data Analysis.....	26
Results.....	27
Previous Results	27
PDSA 1	27
PDSA 2.....	27
PDSA Cycle Three.....	28
Demographic Data.....	28
Tobacco Screening and Counseling	29
Quality Metric Rates.....	31
Discussion.....	32
Summary	32
Interpretation.....	34
Recommendations.....	36
Implications.....	37
Limitations	39
Conclusion	39
References.....	41

List of Tables

Table 1. *Coding for Tobacco Screening and Counseling* 25

Table 2. *PDSA One Education*..... 27

Table 3. *PDSA Two Education* 28

Table 4. *Tobacco Screening and Counseling Frequencies by Month per Provider* 29

Table 5. *Tobacco Screening Rates* 30

Table 6. *Frequency Distributions for Selected Categorical Variables*..... 31

Table 7. *Chart Audit Timeline* 48

Table 8. *Data Analysis* 49

List of Figures

Figure 1. *Gnatt Chart for Tobacco Cessation Counseling Audits* 24

Figure 2. *Tobacco Screening and Documentation Performance Rates* 31

Figure 3. *Tobacco Cessation Counseling Central Kentucky Clinic Rate* 50

Figure 4. *Expected Clinical Flow for Tobacco Cessation Counseling Documentation* 51

Figure 5. *Actual Clinical Flow for Tobacco Cessation Counseling Documentation* 52

Figure 6. *Fishbone Diagram*..... 53

Figure 7. *Prioritization Matrix* 54

Figure 8. *Performance Rates in EPIC for Clinic*..... 55

List of Appendices

Appendix A: *Documentation Handout* 56

Appendix B: *Provider Survey*..... 57

Appendix C: *RedCap Data Sheet* 58

Appendix D: *Allscripts verses EPIC Documentation*..... 60

Improving Tobacco Cessation Counseling Documentation in the Primary Care Setting

Introduction

According to electronic health record (EHR) reviews of primary care clinics, tobacco cessation counseling is not being sufficiently documented in the United States (Flocke et al., 2018; Bailey et al., 2017; Grasbeck et al., 2020). This is significant for Kentucky patients since Kentucky has the second highest smoking rate (23.6% of adults) in the nation (AHR, 2021; Statista, 2020). The high prevalence of smoking in Kentucky has led to the highest national lung cancer incidence rate (88.8 out of 100,000 people), high healthcare costs (\$1.9 billion from direct medical costs), and the highest national number of preventable deaths related to tobacco at 8,900 annually (ALA, 2020; CDC, 2021; Xu et al., 2021). Tobacco cessation counseling in primary care can lower these preventable health conditions and costs through increasing quit rates by 10-25% (Stead et al., 2015). The documentation of tobacco cessation counseling ensures appropriate timely follow-up on cessation efforts to decrease relapses, since tobacco consumption is a chronic condition that should be treated as such with multiple visits overtime (HHS, 2020; Fanshawe et al., 2017). The lack of tobacco cessation counseling documentation needs to be addressed to improve patients' continuity of care regarding their cessation readiness in the outpatient setting (Wray et al., 2017). If documentation remains inconsistent, cessation counseling education and preventative measures, such as lung cancer screenings, may be missed.

Background

Tobacco counseling documentation consists of charting whether the patient uses tobacco products, their readiness to quit, and what steps they have taken toward cessation (ALA, 2018). Documentation reimbursement guidelines require information about prescriptions, referrals, and resources to support the time taken for counseling (AMA, 2021). Charting often includes

information on readiness to change in relation to the approved “5As” method (ask, advise, assess, assist, and arrange) so cessation efforts can be continued at future visits (HHS, 2014; HHS, 2020).

Documentation of tobacco cessation counseling is important to provide patient-centered follow-up care. Tobacco use is considered a chronic condition that requires follow-up for each quit attempt, at a minimum of four visits per year, with preferably 10 minutes of provider discussion with the patient (CDC, 2021; HHS, 2020; Fanshawe et al., 2017). Guidelines recommend the first follow-up in three to four weeks, then monthly thereafter for three months (HHS, 2014; Fanshawe et al., 2017; Stead et al., 2016). These continual sessions allow for assessment of the patient’s progression, further assistance with resources, or arrangements to overcome barriers in care (HHS, 2020). Providers need to document the counseling session completely so goals are continued at follow-up and to ensure all care team members are aware of the patient’s cessation progression in case the patient’s follow-up is not with their PCP. If the patient does follow-up with their PCP the provider may not recall the details of the visit if proper documentation is not provided regarding the patient’s tobacco cessation management plan. The Affordable Care Act expanded covered tobacco counseling services for a quit attempt to include four counseling visits a year (up to two quit attempts), but if a patient session is inaccurately documented, it may not be adequately covered (“Truth Initiative,” 2018).

According to the National Health Interview Survey (NHIS), tobacco cessation counseling for adults in the ambulatory care area has increased from 11.1% in 2012 to 20.2% in 2016 across the United States. The Healthy People 2030 aim is to increase this objective, with a goal set at 43.8% for counseling provided in the ambulatory setting (Healthy People 2020, 2021; Healthy People 2030, 2021). Despite these improvements in tobacco cessation counseling, consistent

documentation is lacking in the primary care setting. For example, researchers at a primary care clinic in Ohio found 74% of patients who used tobacco products had no documentation of counseling or medications for cessation and only 15.4% received tobacco cessation counseling (Flocke et al., 2018). In fact, even when counseling is documented it is not always complete. In one study, 50% of patients in an EHR were advised to stop smoking, but only 2% had appropriate follow-up arranged to facilitate this (Williams et al., 2014).

The Medicare Access and CHIP Reauthorization Act (MACRA) and the related payment approach for providers known as the merit-based incentive payment system (MIPS) identified tobacco screening and cessation intervention (MIPS measure number 226) as a Quality Payment Program (QPP) measure (AMA, 2020; ALA, 2017). The National Quality Strategy (NQS) domain for this measure focused on community/population health. The QPP measure number 226 also referred to as National Quality Forum (NQF) number 0028, is described as the percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 12 months and who received tobacco cessation intervention if identified as a tobacco user. Therefore, documentation of tobacco cessation counseling can have financial implications per the MIPS measure if not completed.

Primary care clinics across the United States are currently using integrated EHRs and electronic tools to facilitate counseling documentation (Fernandez et al., 2020; Adam et al., 2019). The new EHR systems, like Epic, have enabled clinics to utilize programs like the Ask-Advise-Connect (AAC), which has options to modify the EHR to require an action be taken with prompts such as advising the patient to stop smoking and/or clicking the electronic referral to the quit line resources before proceeding in the chart (Fernandez et al., 2020; Vidrine et al., 2013). Other clinics are using tools like MyTAPS or the 5As within EHRs for management cues (Adam

et al., 2019; Bartsch et al., 2016). The MyTAPs is often completed upon rooming or by the patient in the waiting room; this questionnaire is more comprehensive, covering all substance use (Adam et al., 2019). Bae et al. (2016) found that more advanced medical record systems (like Epic) compared to basic systems had greater charting compliance due to more reminders in place for providers to chart required portions such as the AAC template within EHRs (CDC, 2020). The 5A's are a good example of that since this tool ensures tobacco use is fully managed, asking about tobacco use, advising cessation, assessing readiness for cessation, assisting in cessation, and arranging for follow-up (Bartsch et al., 2016). Therefore, evidence has demonstrated that technology can impact tobacco cessation counseling documentation in primary care settings with enhanced EHRs through prompts, reminders, and documentation guidance.

Barriers to proper documentation exist. Time constraints is one barrier with the more detailed documentation tools (MyTAPs) that can take up to four minutes to complete (Adam et al., 2019). Prompts for counseling will not occur if screening has not been completed so care gaps (missed opportunities for interventions appropriate to the level of readiness for change) can occur. If documentation is not sufficient, counseling cannot be billed and the performance metric for tobacco screening will not be completed (AMA, 2021).

For this study, the principal investigator worked with a family medicine clinic focused on improving population health by evaluating the QPP measure for tobacco use screening and cessation chosen by the clinic for fiscal year (FY) 2021 as one of the six quality metrics. This measure nationally requires the past twelve months of data, but the clinic tracked the past twenty-four months for this performance rate. The measure in the clinic is described as the percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months and who received tobacco cessation intervention if identified as a

tobacco user. The principal investigator used this measure's performance rates to enhance understanding of tobacco cessation counseling documentation changes during the change in EHRs. At the family medicine clinic where this project was conducted, there are three approved ways to document tobacco cessation counseling in the Allscripts EHR: clicking a non-billable counseling button, clicking a billable counseling button (>3 min., or >10 min.), and/or prescribing a medication for cessation. Epic was chosen by the healthcare system for numerous reasons, such as increased interoperability and enhanced documentation features with queried data and visual cues, all of which help improve provider communication. This EHR change presented an opportunity to focus on tobacco cessation counseling documentation and comparison of EHRs. In addition, clinical leadership requested tobacco cessation counseling documentation be evaluated with the EHR change since it is a clinical goal and metric for FY 2021.

Epic documentation altered the process to four approved ways to document tobacco cessation counseling: clicking a non-billable counseling button, entering a CPT code for counseling (>3 min., or >10 min.), one of the two available smart phrases within the note for counseling, and/or prescribing a medication for cessation. Epic also had visual cues with a smoking symbol on the storyboard (appendix D).

The main disadvantages of Allscripts were the numerous tobacco cessation counseling buttons that complicated the documentation process and inconsistent tobacco screening. The change to Epic was suspected to improve tobacco cessation counseling documentation due to simplified documentation with smart phrases and visual cues, and because providers were prompted to screen for tobacco use at every visit. Screening for tobacco use is an important factor in the QPP measure since without known smoking status providers would be unaware

counseling was needed. The QPP at the clinic where this study was performed was assessed with provider performances rates. The performance rate for tobacco screening and cessation counseling quality metric goal was 76.5%, but the clinic was only 48.2% in Allscripts EHR.

Purpose

The purpose of this DNP project was to evaluate the effect of EHR changes from Allscripts to Epic EHR software on tobacco cessation counseling documentation among primary care providers at a central KY clinic.

Specific Aims

- 1) Describe characteristics of primary care patients screened for tobacco use.
- 2) Evaluate documentation of tobacco cessation counseling pre and post EHR change.
- 3) Evaluate for care gaps with the effect of EHR on quality metric rates.

Theoretical Framework

FOCUS-PDSA Model

This quality improvement project was guided by the FOCUS-PDSA model which is a model for improvement commonly used in healthcare (IHI, 2019). The PDSA portion of the model is endorsed by the Institute for Healthcare Improvement (IHI) and typically involves one of the six Institute of Medicine (IOM) aims for improvement. These aims include safety (avoid injuries), effective (match care to science), patient-centered (respect choice), timely (reduce waiting), efficient (reduce waste), and equitable (close gaps in care) healthcare (IHI, 2019). Improvement initiatives are guided by three questions to slowly alter an organization without disrupting it: “What are we trying to accomplish,” “How will we know that a change is an improvement,” and “What change can we make that will result in improvement?” (IHI, 2019).

The first stage of the FOCUS-PDSA model for improvement is FOCUS: Find a process to improve, organize a team, clarify current knowledge, understand root causes, and select a process to improve (IHI, 2019; OVIHD, 2021). The second stage is PDSA: a planning phase (Plan); an implementation (Do); analysis of results (Study); and spreading changes (Act; IHI, 2019). The model was essential to understanding small cycles of change overtime and helped support more stakeholder and clinic buy-in with the project.

The current DNP project focused on providing effective care using tobacco cessation counseling documentation. This project was completed solely by the DNP student and focused on the effect of EHR changes on tobacco cessation counseling documentation. This project is an extension of previous efforts to increase tobacco cessation counseling documentation within the clinic as PDSA cycle three. PDSA cycle three was adapted to focus on a technology change instead of provider education. Since the healthcare system decided to enact a systemic charting system change, the focus of PDSA three shifted to address the EHR change in documentation pre and post, instead of continuing prior interventions. Otherwise, prior efforts would have been continued.

Prior cycles were completed as part of a practice based interprofessional education group. This researcher served as group member during cycles one through two and was group leader during cycle three. The DNP student led the prework in FOCUS to improve understanding of low tobacco cessation counseling documentation rates across the clinic. The group identified variations in documentation of tobacco cessation counseling among providers. The root cause for these variations and lack of counseling button usage was due to insufficient provider knowledge on approved tobacco cessation counseling documentation (see Figures 4-7). These findings led to creating educational interventions for providers focused on improved

documentation for PDSA cycles one and two. These cycles of change resulted in feedback from providers stating they wanted more direct documentation and clearer steps to do so. Instead of adapting the educational intervention further, the DNP student shifted focus to technology changes to address the main issue identified by provider feedback: the convoluted charting process of documentation. At the time of PDSA cycle three, the clinic changed charting systems, which permitted this change of focus. Therefore, this model was essential in understanding how to adapt and modify cycles of change over time for more effective healthcare in relation to tobacco cessation counseling documentation.

Literature Review

Family nurse practitioners have an opportunity to impact tobacco cessation sustainability with detailed documentation of supportive follow-up visits (Bailey et al., 2018; Wray et al., 2017). In preparation for this quality improvement project, a literature review was completed to determine barriers and facilitators to improving primary care providers' tobacco cessation documentation rates.

A literature review was conducted using Cochrane, CINAHL, and PubMed. Search terms included *cessation documentation, counseling, tobacco, primary care, and tobacco documentation*. Initial searches yielded 120 results on CINAHL, 9,213 on PubMed, and seven on Cochrane with *tobacco documentation*. Results were narrowed with key words; for example, *primary care* reduced the number of articles on CINAHL to 15, and on PubMed to 80. Articles were excluded if not in English or published before 2015. Types of studies from highest to lowest strength: two randomized controlled trials (level I), two pre-test post-test studies (level II), two retrospective studies (level III), one observational study (level III), one cross sectional

survey (level V), and one quality improvement study (Level V). Nine articles were chosen based upon quality of evidence, themes, and sample size.

Synthesis of Evidence

All nine studies emphasized the importance of charting tobacco cessation counseling for continuity of care and continued cessation management. Three consistent themes emerged from the literature review, with regard to the reasons why providers either do or do not document cessation counseling: documentation knowledge, technology, and incentives. These three themes contributed to a better understanding of why provider education and electronic health record changes could make a significant change in documentation rates.

Documentation knowledge is fundamental in ensuring that tobacco cessation counseling will be correctly charted, especially with the various EHR systems and requirements. In fact, two research teams recommended giving providers educational handouts and/or videos on the proper documentation of counseling (Chase et al., 2020; Caudill et al., 2019). In one study, the intervention included stickers on check-out-cards as a visual reminder (Caudill et al., 2019). In both studies, pre and posttest surveys helped assess the success of the educational intervention (Chase et al., 2020; Caudill et al., 2019). Caudill et al. (2019) found that documentation of tobacco history (including pack years) improved throughout three of the four cycles of change. The provider feedback in Dr. Caudill's research after cycle three showed that documentation of tobacco use was important, and they wanted the educational interventions to continue with the flyer and sticker. Another study found the educational video significantly enhanced provider knowledge on tobacco cessation counseling and documentation with a pretest and posttest (Chase et al., 2020). The study survey found 86% of providers stated after the video they felt

they could assist a patient with tobacco cessation, so enhancing counseling knowledge as well as documentation knowledge is just as important.

Technology is another component that can help facilitate better documentation of tobacco cessation counseling. As healthcare systems become more integrated, technology becomes a more useful way to provide reminders and screening tools (Fernandez et al., 2020; Scatterfield et al., 2018). The article discussed a better flow in these newer EHRs that were more seamless in charting (Fernandez et al., 2020). The newer EHR platforms help overcome the tedium that often deters providers from documenting cessation counseling (Greenwood et al., 2021; Scatterfield et al., 2018; Flocke et al., 2018). The new EHR systems have prompts through programs like Ask-Advise-Connect (AAC), which can be programed to require a provider to take an action before advancing in the note documenting that they advised the patient to stop smoking and/or clicking the electronic referral to the quit line resources (Fernandez et al., 2020; Vidrine et al., 2013). These programed hard stops and prompts have improved documentation compliance. Other features utilized in clinics across the nation are enhanced visual cues and reminders on how to document with tools like MyTAPS or the 5As within EHRs (Adam et al., 2019; Bartsch et al., 2016). Lastly, the greatest impact with the newer EHRs is greater involvement of the clinical staff in tobacco screening and interventions upon rooming the patients. One study had two clinics pilot an EHR change that had the clinical nursing staff complete four of the Five A's upon rooming the patient (ask, advise, assess readiness to quit, and assist with quit resources) which had significant sustained effects at six months (Flocke et al., 2019).

Lastly, financial incentives via bonuses or reimbursement are known to increase tobacco cessation counseling documentation (Fortmann, 2020; Bailey et al., 2018; Bailey et al. 2017). Providers are motivated to excel in charting if they receive credit for doing so. At the family

medicine clinic where this project was conducted, tobacco cessation counseling documentation is a clinic quality metric that is evaluated as a part of job performance.

Knowledge Gap

The literature review revealed tobacco cessation counseling documentation is important for continuity of care and provider communication in cessation efforts, but research is lacking on the financial implications of the newer EHR technology in relation to tobacco cessation counseling documentation (HHS, 2020; Fanshawe et al., 2017). There were limited discussions comparing the superiority of different EHRs since there was no focus upon billing or sustainability of these systems in relation to tobacco cessation counseling documentation. Billable tobacco cessation counseling can result in 27.93 dollars per visit counseled longer than ten minutes and 14.32 dollars per visit counseled for three to ten minutes for Medicare and/or Medicaid insurance plans (CMS, 2020). This revenue potential is substantial, so documentation needs to meet reimbursement criteria. Therefore, the current study evaluated the financial implications of tobacco cessation counseling documentation in the predominantly Medicare and Medicaid patient population.

Methods

Description of Previous Work

The family medicine clinic in which this study was conducted had prior healthcare gaps related to provider knowledge of correct documentation of cessation counseling for the tobacco screening and counseling quality metric. A baseline chart review of fifty tobacco users in October 2020 (see Figure 6) revealed providers were completing counseling within the note as free text rather than by using the approved counseling buttons. The free text was not queried to count for the tobacco screening or counseling quality metric, so performance rates appeared

lower as a result (see Figure 2). This oversight caused quality metrics to record a higher rate of uncounseled tobacco users and lower reimbursement rates (CMS, 2019; AMA, 2021). This was the impetus behind PDSA cycle one and two quality improvement projects, to educate providers on the approved charting formats.

The DNP student leader led the quality improvement team of four FNP DNP students for one hour twice a month (every other Wednesday), from August 2020 to May 2021. These meetings facilitated the development of tools in the FOCUS aspect of the model to guide implementation (see Figures 4,5, and 7).

PDSA Cycle One

The DNP student leader and quality improvement team created an educational handout for providers (see Figure 7) on the three approved methods of tobacco cessation counseling documentation in Allscripts. The handout was emailed on March 1st, 2021, to four providers selected by clinical leadership with a Qualtrics survey attached on the handout. The study was completed from March 1st, 2021, to March 22nd, 2021. The survey was developed in Qualtrics with a few questions using a Likert scale to determine the helpfulness of the handout in approved documentation. In addition, in-person follow-up was completed in between patients for each of the four providers to reinforce and elaborate on the handout and steps for cessation counseling documentation.

Chart audits were completed one week pre-intervention and one-week post-intervention on each of the four providers. Each audit had five patients selected at random that met the inclusion criteria, cycle one had forty chart reviews completed. Chart audits checked for counseling button selection, either billable or nonbillable, ordering of medications for cessation, and notes inclusion of cessation counseling in the HPI or plan.

The sample for PDSA cycle one providers were selected by clinical leadership with convenience sampling due to several providers absent from clinic at this time for vacations and/or leave. Clinical leadership had attempted to randomly select by evaluating performance rates on tobacco cessation counseling and management with two high performers and two low performers per PDSA cycle. However, randomization was unable to be performed this way due to the limited provider sample. A total of four providers were chosen: one resident, one MD, and two APRNs. Any provider could have been selected: MDs, DOs, APRNs, and/or residents in the provider sample.

PDSA Cycle Two

For cycle two, a modified educational handout was sent to different providers via email on April 5, 2021. The study was from March 24th, 2021, until April 16th, 2021. The handout was modified to include arrows to clarify the sequence of approved steps in documentation within the Allscripts EHR (see appendix A).

The random provider sample excluded the four providers already used in PDSA cycle one since we did not want influences from prior educational interventions on performance. There were two high performing residents, one low performing MD, and one low performing resident used for this randomized sample. The chart audits of tobacco users were selected using every other patient that met inclusion criteria: an established adult patient (18-year-old to 89-year-old) in the clinic that smoked tobacco. Chart review included five per provider pre and post for a total of ten for each provider and forty total charts. Upon review, the educational interventions showed a non-significant increase in provider documentation of tobacco cessation counseling. The plan was to continue the educational focus, but the healthcare system decided

upon an EHR change so the project shifted to evaluating documentation pre and post EHR change.

Design

The design of this current project was a single-center retrospective and prospective study focused on evaluating and improving provider documentation of tobacco cessation counseling. The project was completed at a family medicine clinic in central KY, from May 2021 to October 2021 by the DNP student leader.

Setting

Agency Description

The project was completed at a family medicine clinic in central KY, which is an academic primary care clinic. The clinic provides care to individuals across the lifespan including obstetric care. There are 20 providers in the clinic with diverse backgrounds: 14 MDs, 2 DOs, 4 APRNs, and family medicine residents from 1st-3rd years. There are medical assistants in the clinic, 2 social workers, a psychologist, registered nurses, and licensed practical nurses that assist with patient care as well. This is also a clinical training site for DNP FNP students in clinical skills and quality improvement work.

Agency's Mission and Project Alignment

The academic clinic is focused on using innovation and evidence-based care to enhance the patient-centered care provided. In fact, the office for value and innovation in healthcare delivery (OVIHD) has collaborated with the clinic through a HRSA training grant for quality improvement teams to implement innovative ideas and/or new evidence-based practices into the clinic systems and processes of care. The 2020-2021 quality improvement teams started August 2020 and met biweekly until July 2021. At the initial QI group meeting, the department

identified six quality metrics to target during fiscal year 2021, one of which was tobacco cessation and management. The baseline rate of tobacco cessation counseling was 51.8% of tobacco users counseled and/or medication management implemented. The target for this metric is 75%, which the clinic has not met consistently, the current data report shows there are 1310 or 48.2% of smokers not being counseled within the last 24 months. The DNP project and QI project focused on tobacco cessation documentation which aligned with clinic goals and needs.

Stakeholders

Stakeholders primarily include providers (APRNs, DO, & MDs) which would be the sample used for the intervention, a clinic mentor who helped with data collection from AEHR, and patients who smoke tobacco products that were impacted by the improved documentation. Other involved stakeholders would be clinic leadership, lung cancer screening coordinator, medical assistants, and registered nurses. All other stakeholders are involved in the patient experience at the clinic with charting smoking status (medical assistants & RNs), screenings (lung cancer coordinator), or clinic procedures for the quality metric (leadership).

Sample

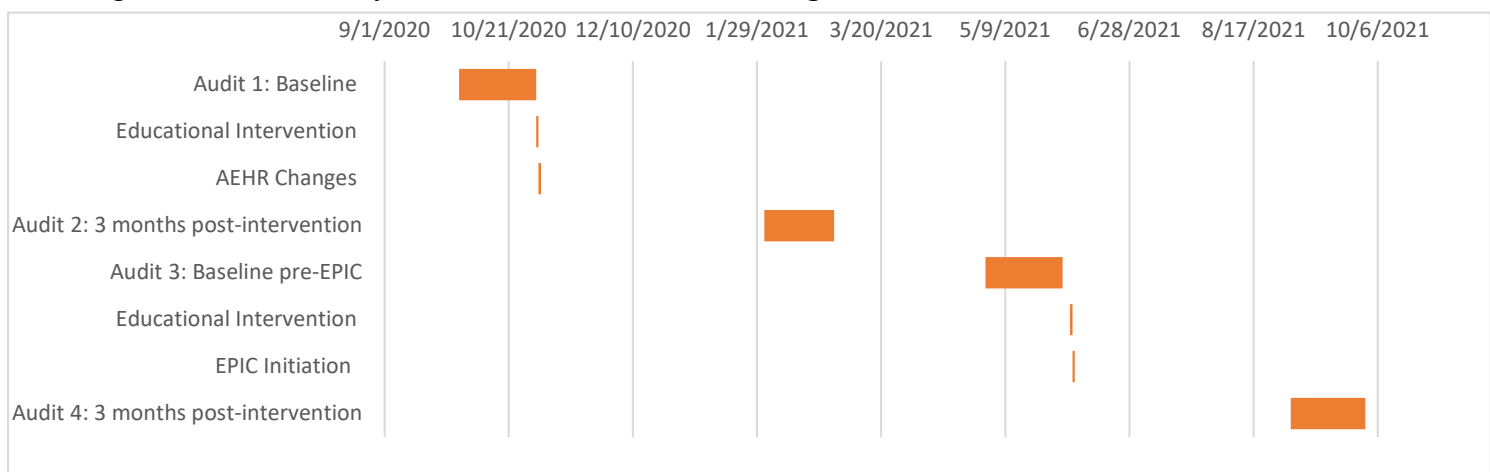
There were two sample groups used and no active recruitment was conducted for either group of participants.

- 1) The provider sample group consisted of four primary care providers randomly selected from the first two PDSA cycle participants. The four selected were two MDs and two APRNs. PDSA cycle three occurred from May 2021 until October 2021. Additional time points were reviewed to evaluate trends in data overall from October 2020 until October 2021. Providers on leave or that left the clinic during phase three were excluded. There was a mixture of MDs, APRNS, and residents within groupings consistent with the varied providers within the

clinic on a regular basis. The study population for providers did not exclude based on race or sex/gender.

- 2) The second sample consisted of adult patients (18 years to 89 years of age) that met the tobacco screening and counseling quality metric criteria. The criteria included the following: aged 18 years and older, screened for tobacco use one or more times within 24 months, and received tobacco cessation intervention if identified as a tobacco user. Vaping or other tobacco forms besides smoked cigarettes were not included in the chart review sample. There was no exclusion based on race or sex/gender. Ninety-six patients were selected for this study sample from May 2021 until September 2021. The patient sample was randomly pulled from the quality metric data for tobacco screening from each of the four providers in May 2021 (Allscripts) and September 2021 (Epic). The population that met this criterion were randomized with a randomization generator by a statistician that selected twelve patients per provider for each month. Additionally, there were 87 patients that were randomly pulled in the same manner for October 2020, and February 2021 in Allscripts to evaluate PDSA cycles overtime (see Figure 1). Therefore, the total patient population was 183 individual patients whose charts were reviewed.

Figure 1. *Gantt Chart for Tobacco Cessation Counseling Audits*



IRB Approval

Institutional Review Board (IRB) approval was obtained after review by exempt application status August 19th, 2021, due to minimal risk to participants for PDSA cycle three.

Procedure

The DNP student leader completed cycle three by evaluating the effect the change in EHR systems had upon tobacco cessation counseling documentation from Allscripts in May 2021 to Epic three months post implementation in September 2021.

Data Collection

Tobacco screening and cessation counseling documentation rates, and frequencies were collected for each month (October 2020, February 2021, May 2021, and September 2021) for each of the four providers. The clinical mentor provided data categorized into three groupings. The first group were smokers not counseled and/or patients not screened for smoking status. The second group were coded for tobacco users screened and counseled, whereas group three were non-smokers screened (see Table 1). These groupings were utilized to run frequency distributions and to randomize for each provider's twelve patients for further chart review.

Table 1. *Coding for tobacco screening and counseling*

Groups	
1	Smokers not counseled &/or not screened for tobacco use
2	Smoker; counseled
3	Non-smoker; screened

Charts were reviewed in each EHR system for tobacco screening completion (yes or no), counseling provided if a smoker (yes or no), and demographic data (gender, race, ethnicity, age, PCP, and insurance type). The Allscripts chart review focused on checking for billable or nonbillable counseling button selection, tobacco cessation medication ordered, or unapproved

free texting of the counseling within the note. Epic chart review focused on checking for the nonbillable counseling button selection (can be accessed with storyboard icon), billable current procedural terminology (CPT) codes for counseling, tobacco cessation medication ordered, smart phrases within the discussion, and/or unapproved free text within the note on counseling (see appendix D).

Rates for providers and the clinic over the four audit periods (October 2020, February 2021, May 2021, and September 2021) were generated by the clinical mentor from the clinic's quality report dashboard by looking at the numerator and denominator numbers. The numerator can be population one patients screened for tobacco use once within 24 months, population two patients who received tobacco cessation intervention, or population three patients who were screened once within 24 months and who received cessation intervention if identified as a tobacco user. The denominator is the initial population who are patients 18 years of age and older seen for at least two visits or one preventative visit during the measurement period. Data collected in chart reviews were stored in a deidentified format in REDCap with the HIPAA safe harbor method.

Data Analysis

Descriptive statistics were used to evaluate EHR changes (PDSA cycle three). Frequency distributions were used to summarize tobacco screening and cessation counseling documentation of the four selected providers in May 2021 and September 2021 (see table 1). Demographic data of the primary care patients screened in PDSA three were evaluated with a frequency table on the following variables: insurance type, PCP, race, ethnicity, gender, and age range from the past year (see table 2). Lastly, the repeated measures ANOVA test was used to compare performance

rates of providers overtime between Allscripts to Epic charting systems (see figure 1). All statistical data were analyzed in SPSS 25 with the assistance of a statistician.

Results

Although the purpose of the current study was evaluating EHR change, a brief description of PDSA cycles one and two are provided here as they are related to and informed the current investigation. These PDSA cycles previously have been factored into consideration in regard to practice implications and recommendations for tobacco cessation counseling documentation evaluation within the EHR change.

Previous Results

PDSA 1

PDSA cycle one resulted in a small increase in tobacco cessation counseling documentation rates after the provider sample was educated on the approved documentation. Further statistical analyses were not conducted due to the small sample size. Survey feedback: “need more direct steps on how to document.”

Table 2. *PDSA One Education*

Provider	Pre-Intervention	Post-Intervention
1	3/5 or 60%	3/5 or 60%
2	3/5 or 60%	5/5 or 100%
3	5/5 or 100%	5/5 or 100%
4	4/5 or 80%	5/5 or 100%

PDSA 2

PDSA cycle two resulted in a small increase in tobacco cessation counseling documentation rates after the provider sample was educated on the approved documentation. Further statistical analyses were not conducted due to the small sample size. Survey feedback: “Great handout,” “simplify charting steps.”

Table 3. *PDSA Two Education*

Provider	Pre-Intervention	Post-Intervention
1	1/5 or 20%	2/5 or 40%
2	0%	0%
3	2/5 or 40%	4/5 or 80%
4	0/1 or 0%	½ or 50%

PDSA Cycle Three

The principal investigator focused on the effect of the EHR transition by evaluating demographic data, frequencies, and performance rates using the two different EHR systems. These methods were utilized to analyze the aims of the study.

Demographic Data

The clinic’s demographic data from chart reviews revealed that the patient population screened and/or counseled for tobacco cessation was primarily Caucasian, non-Hispanic, and female, which is congruent with the clinic’s overall patient population (Table 4). Most of the patients had HMO insurance plans or Medicaid; there were no major differences between private or public insurances. There was an even distribution among ages with most patients being 58-67 years of age. Primary care providers’ documentation accounted for 46% of the patients that met the quality metric documentation components, with 43% of the tobacco screening and counseling documented by specialty encounters since any visit billed as an established office visit (99213, 99214, or 99215) was pulled in the raw data used to generate the frequencies and demographic table. Any visit was included within primary care so there were no specific criteria between acute visits or preventative visits. However, specialty visits were only pulled if it was billed like an outpatient visit. The coders were evaluating this issue to filter only preventative care visits in the future since having any visit type led to inclusion of specialty visits or acute visits. The inclusion of other visit types skewed the tableau data for the clinic’s tobacco screening and cessation counseling quality metric performance rates.

Table 4. *Frequency Distributions for Selected Categorical Variables: Chart Review (N=183)*

Variable	Frequency	Percent (%)
<u>Age</u>		
18-27	12	6.6
28-37	33	18
38-47	36	19.7
48-57	36	19.7
58-67	44	24
68-77	14	7.7
78-87	7	3.8
88-89	1	0.5
<u>Provider</u>		
Primary Care Provider	84	46
Other Provider in clinic	20	11
Specialist	79	43
<u>Ethnicity</u>		
Hispanic	5	2.7
Not Hispanic	178	97.3
Unknown	0	0
<u>Race</u>		
American Indian/Alaska Native	0	0
Asian	4	2.2
Native Hawaiian/Pacific Islander	0	0
Black/African American	41	22.4
White	138	75.4
Other	0	0
<u>Gender</u>		
Female	145	79.2
Male	38	20.8
Other	0	0
<u>Insurance</u>		
Medicare	24	13.1
Medicaid	48	26.2
HMO	52	28.4
PPO	38	20.8
Combined (>2 insurances)	15	8.2
None	1	0.5

Tobacco Screening and Counseling

Chart review revealed screening was usually being completed and there was a significant increase after the EHR change. There were several smokers not screened in Allscripts due to the type of visit if it was an acute or specialty focused visit. The specialty visits appeared to screen but never document counseling. In fact, documentation with the approved nonbillable tobacco cessation counseling button in Epic’s EHR improved to 100% from Allscripts which was at 16.7% pre-EHR change (May 2021). The billable options (3-10 minutes, or >10 minutes) did

not improve. All billable options had 0% documented in this format, except October 2020 was 7.7% for the 3–10-minute billable option at baseline. None of the billable CPT codes (99406 or 99407) for tobacco cessation counseling documentation were used in Epic audits, meaning none of this effort was billed for reimbursement.

Table 5. *Tobacco Screening Rates*

Time Period	Provider			
	P1	P2	P3	P4
October	12/12 = 100%	10/12 = 83%	3/3 = 100%	12/12 = 100%
February	12/12 = 100%	11/12 = 91.7%	11/12 = 91.7%	12/12 = 100%
May	12/12 = 100%	12/12 = 100 %	11/12 = 91.7%	12/12 = 100%
September	12/12 = 100%	12/12 = 100%	12/12 = 100%	12/12 = 100%

The frequency tables for the three coded groupings (tobacco user, non-tobacco user, and tobacco user screened with no intervention or not screened) of all patients in the clinic per month per provider, revealed providers increased frequency of screening and counseling documentation, with a large increase in screening between May (pre-Epic) and September (post-Epic). Provider increases in tobacco screening can be seen in the percentage increases of nonsmokers (group 3 in Table 6) from May to September 2021: Provider one from 54.8% to 82.2%, provider two from 68.6% to 86.6%, provider three from 80% to 85.5%, and provider four from 66.7% to 85.9%. This group reveals screening the best due to the isolation of just smoking status where the other two groupings had counseling interventions involved as well. Most patients were screened for tobacco use, and smokers appeared to have been counseled in September 2021 (group 1 in Table 6). Tobacco cessation counseling documentation change was minimal from May 2021 to September 2021. This small change was due to a coding issue where the smart phrases were not included yet in the tableau data but were included for Epic, this has since been resolved. Numbers should be significantly higher for tobacco counseling with the smart phrase inclusion which is reflected in the quality metric rates.

Table 6. Tobacco Screening and Counseling Frequencies by Month per Provider (N=1,741)

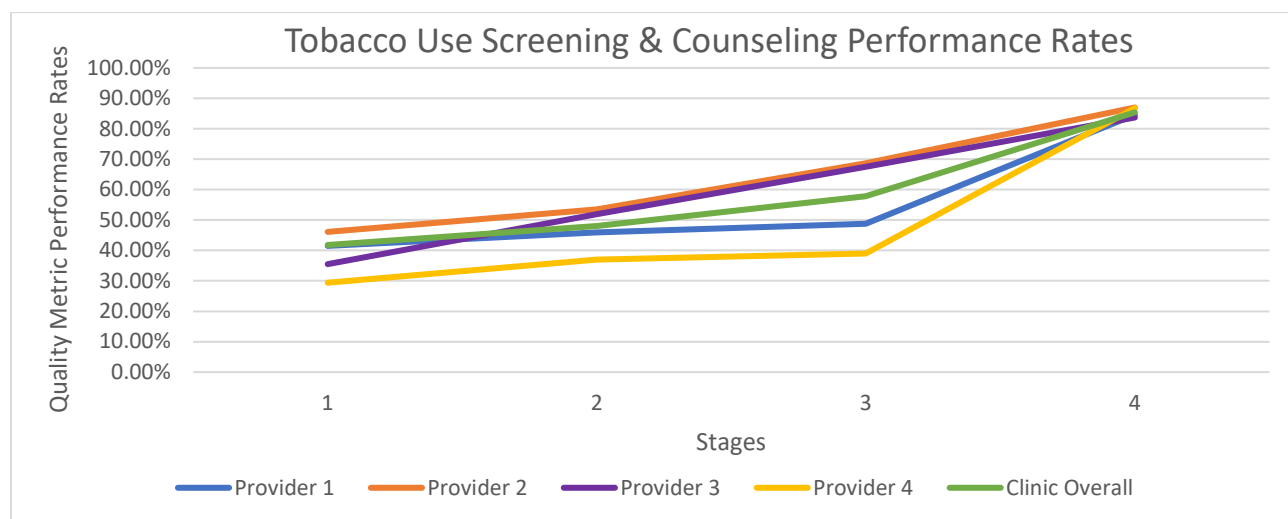
Groups	Oct.				Feb.				May				Sept.			
	P1	P2	P3	P4	P1	P2	P3	P4	P1	P2	P3	P4	P1	P2	P3	P4
1	22	5	0	9	24	11	4	8	55	10	1	11	0	0	0	0
2	2	9	0	2	13	11	6	3	34	27	4	8	79	42	9	23
3	48	10	3	10	67	50	18	26	108	81	20	38	365	272	53	140

KEY:
 1= Smokers not counseled & patients not screened for tobacco use; 2= Smokers counseled; 3= Nonsmokers

Quality Metric Rates

Performance rates for the clinic and providers were analyzed with the repeated measures ANOVA across stages 1-4 which were representative of the following months: October 2020 (stage 1), February 2021 (stage 2), Mary 2021 (stage 3), and September 2021 (stage 4). In the repeated measures model, there was a significant change in rate of tobacco cessation screening and counseling across stages ($F=37.7, p<.001$). Stage 4 had significantly higher rates than all other stages (see Figure 2). Stage two and three did not differ significantly, but there was a steady increase (this was when PDSA one and two were implemented).

Figure 2. Tobacco Screening and Documentation Performance Rates



Discussion

Summary

The purpose of this study was to evaluate changes in tobacco cessation screening and counseling documentation before and after the transition to a new EHR. Overall, a significant improvement in tobacco use screening and cessation counseling documentation was noted in the new EHR with Epic.

There were significant increases in tobacco screening quality metric performance rates in screening and counseling from Allscripts (May 2021) to Epic (September 2021). The documentation rates for cessation counseling exceeded the clinic's target goal for each provider and as a clinic. Repeated measures ANOVAs showed a steady increase in documentation over time after an educational intervention teaching providers about where and how to document smoking cessation, with an exponential increase in documentation rates after the transition to a new, purportedly superior EHR. This suggests that while education was effective, the improved technology with an advanced EHR was the key to improvement. February and May were the only time periods that did not differ significantly with the repeated measures test, but there was still a steady increase in documentation during this time.

However, providers did not submit billing for tobacco cessation counseling. All randomly selected chart audits in Epic EHR revealed providers used the nonbillable counseling button instead of entering the billable CPT codes. This appears to be an unintended consequence of simplifying the counseling buttons to one option, which had a downstream effect of eliminating billing of counseling services by providers.

The frequencies and chart reviews revealed an increase in screening rates, and enhanced counseling of patients who smoke. However, the documentation in the HPI and plan did not

decrease, since Epic permitted smart phrases within the note that were coded to count for discussing cessation (see Appendix D). The smart phrases were not included in the performance rates for this study due to a coding issue which prevented capture of the data in the tableau software. Now that the issue has been resolved, future reports should be more accurate and will likely show even higher rates of documentation. In fact, the documentation of screening for tobacco use is now incorporated within the vital signs and counseling can be documented there as well.

Demographic data revealed a potential variable impacting performance rates. Almost half of the audited patients that had met the tobacco cessation counseling documentation criteria were from specialty clinic encounters, but counseling was often not performed so this lowered the performance rates. Upon review, it appeared that any provider seeing the patient for a routine clinical encounter whether that be another provider in the clinic or in a specialty would hinder or aid the primary care provider's performance score based on the other provider's documentation. Provider specific performance metrics may not be entirely accurate due to this finding, so clinic specific performance metrics overall should be compared to ensure a more accurate alignment. The inability to extract/separate PCP data compared to specialty data on tobacco screening and cessation counseling documentation could have attributed to the lower billable counseling rates seen. Upon chart review specialty providers were primarily screening for tobacco use, if the patient smoked the providers checked the nonbillable counseling option, but the visit was so focused on a particular issue that there was minimal documentation on tobacco cessation counseling. In comparison, primary care physician notes documented more details pertaining to cessation goals in the discussion. Thus, specialty provider data appears to have increased screening rates but decreased counseling rates for the PCPs in this project.

Interpretation

Kentucky is leading the way in tobacco consumption instead of tobacco cessation, with the second highest smoking rate in the nation (AHR, 2021; Statista, 2020). Instead, we need to lead the way in improving tobacco cessation counseling documentation among primary care providers, since studies have demonstrated higher cessation success with better documentation due to the enhanced support and continuity of care (HHS, 2020; Fanshawe et al., 2017; Wray et al., 2017). This DNP project, at a central KY family medicine clinic, demonstrated a significant increase in documentation performance rates with the Epic EHR compared to the Allscripts EHR system, due to the ease of documentation with smart features (CDC, 2020). The smart phrases for tobacco cessation counseling can be inserted in the discussion of the note within Epic and queried for performance rates or billing to have a complete data capture for counseling, unlike Allscripts where this would not be counted. This enhanced flow and ease of smart tools within the system for counseling documentation aligns with other studies that found success with implementing the 5A's template into EHRs, using queried phrases, or utilizing counseling buttons for easier documentation of the discussion (Scatterfield et al., 2018; Bailey et al., 2018; Bailey et al., 2017; Fernandez et al., 2020). Now that the enterprise has determined which smart phrases were coded to capture in the discussion of the provider note, the clinic will be able to see the advantage of these queried phrases in future studies.

Chart reviews revealed a significant improvement in tobacco use screening in Epic since the smoking status was included in the vital signs for every visit. In Allscripts, the smoking status was only in the annual review for the nurses to screen and since the reviews were not completed every visit, screening was not always completed. Thus, it is possible that one of the reasons counseling improved, was because screening improved, thanks to the easier documentation process

in the Epic EHR. The enhanced screening may have led to more awareness of who needed further counseling by providers, and thus counseling rates increased for patients that used tobacco after the change to Epic. The higher screening and counseling rates may lead to better preventative management of this at-risk population with measures such as low dose CT lung scans to detect cancer earlier (Caudill et al., 2019; ALA, 2020).

In addition, the tobacco screening within Epic was more detailed compared to Allscripts, and thus facilitated recognition and counseling for both smoked and smokeless tobacco products. The ease of tobacco screening in the new EHR aligned with a major finding in the literature that the improved flow prompted more integration of nursing staff into routine tobacco screening, enabling providers to focus more of the visit on counseling rather than screening (Fernandez et al., 2020; HHS, 2020; Flocke et al., 2019). Providers could do a smart phrase in the note, go to the rooming vital signs page, or go to the storyboard to document the counseling and/or screening with a visual cue. The storyboard had a cigarette image to indicate a patient was a smoker, and if double clicked permitted counseling documentation. Therefore, although the Epic charting system had more approved ways to document counseling with the inclusion of smart phrases and counseling, the system was more straightforward than Allscripts regarding where to document counseling. Allscripts did not have the visual storyboard cues, was limited in what was approved for documentation, and had three buttons for billable and nonbillable tobacco cessation counseling that were in different locations within the chart. Thus, Epic was more straightforward with documentation with the storyboard, and less fragmented with consolidated buttons, making it more user friendly for providers.

To evaluate sustainment of the documentation progress within Epic a quality improvement team could further evaluate the performance rates for this quality metric overtime. Another more

robust and controlled quality improvement study focused on billable counseling documentation for a longer duration would be valuable in evaluating the sustainability of the increased tobacco cessation counseling documentation. In fact, the performance rates should increase significantly in future studies with the inclusion of smart phrases in the performance rate data. Continuing the quality improvement work will not only be advantageous for the clinic but would help meet the needs of patients.

Recommendations

The EHR system change did facilitate a significant increase in tobacco screening and counseling documentation, likely due to the new documentation flow and enhanced documentation features. The clinic should explore the performance rates further by monitoring the new EHR system over a longer period with more PDSA cycles focused on the various charting formats permitted in Epic. Future investigators could examine how the inclusion of smart phrases affects documentation, or the billable CPT coding. Epic performance rates were not monitored longer due to the time constraints of this project. It would be useful to investigate if the performance rates remain steady or drop as providers find new ways to document or are less attentive to the tobacco quality measure. The tobacco cessation counseling documentation was a clinical affairs goal for 2021 and had been a goal for the previous two years. In addition, tobacco screening specifically has been a Medicare access and chip reauthorization act (MACRA) component and an ambulatory quality measure for the clinic. The increased focus on this measure may be a factor in why it has been steadily increasing over the past year and is now exceeding goal.

Incentives with bonuses could enhance motivation towards performing these tobacco measures. Providers are more motivated to excel when the rates are incentivized according to

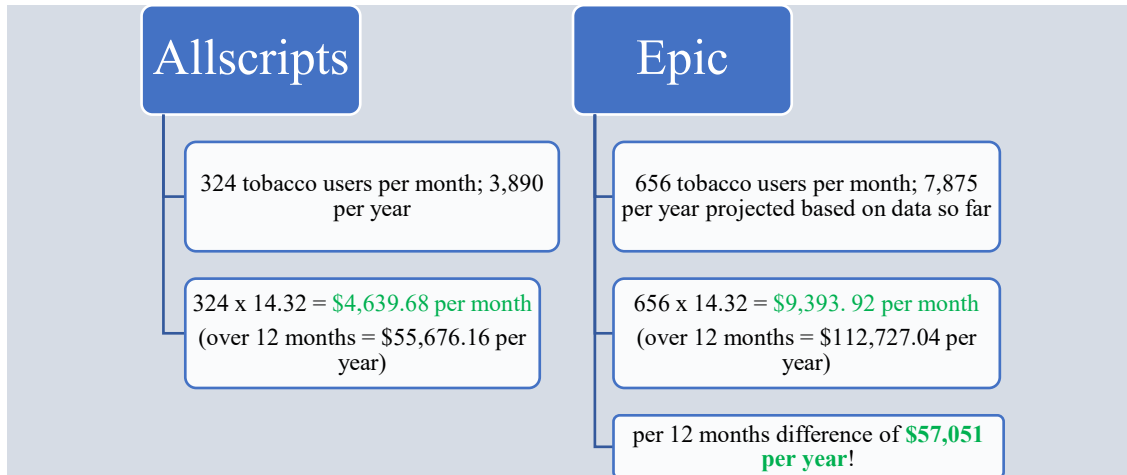
the literature. Thus, ensuring the rates are accurate depictions of the PCPs' performance before utilizing performance rates for quality metrics evaluations is essential. Future studies should evaluate the documentation of billable tobacco cessation counseling within Epic due to the lack of billing for these services with the EHR transition.

Another recommendation would be to add the five A's tool within the Epic EHR. The gold standard for tobacco cessation counseling is to conduct the five A's: ask, advise, assess, assist, and arrange (HHS, 2020). The components ensure that patients are offered treatment, counseling, and follow-up support if they are ready for smoking cessation. The Epic EHR is more descriptive but does not have all these components in the charting system. Therefore, implementing a five A's screening tool within Epic, as other areas across the nation have done, would expedite the assessment for change readiness and ensure that all care elements are included (Fernandez et al., 2020; Scatterfield et al., 2018; Flocke et al., 2019). The tool would ensure that documentation is complete in a standardized format to aid follow-up in case follow-up is with another provider, this detailed documentation would allow for an enhanced understanding of where the patient is with their cessation efforts allowing for progression of counseling (Wray et al., 2017). If tobacco cessation counseling documentation continues to remain high this will aid not only KY, but the nation in meeting the Healthy People 2030 goal to increase tobacco cessation counseling to 43.8% in the ambulatory setting (Healthy People 2030, 2021).

Implications

Depending upon the length of the visit, counseling sessions can be billed for \$27.93 (>10 minutes) to \$14.32 (3-10 minutes) per session (CMS, 2019). The clinic had on average 656 patients who use tobacco every month that have the potential to be counseled on tobacco

cessation. If all of them were billed for a brief cessation counseling session the clinic could earn \$9,393.92 in a month for this quality metric alone. As far as financial implications the switch to Epic has increased screening which has increased counseling due to the enhanced awareness. This improved counseling rates has resulted in increased potential for billing and reimbursement, resulting in a difference of 57000 dollars due to this increased capture.



Policy implications are both national and local. The expansion of Medicare services nationally to permit more counseling sessions makes it imperative that providers are aware of how many sessions a patient has received. Not knowing this can lead to uncovered services and low provider relative value units (RVUs) for services provided. Medicaid in Kentucky has a comprehensive cessation benefit which includes more services than most states with seven medications and three forms of counseling. These reimbursement policies have led to clinic changes in documentation and clinical goals focused on the tobacco metric. Although there are no specific policies requiring providers to document on tobacco cessation counseling, there has been an increase in provider education and support to accomplish this care gap. In fact, 53.3% of quit attempts have occurred in the county where the clinic is located so there is a community

need for cessation assistance that improved documentation may fulfill, especially now amid a pandemic, lung health is of the utmost importance (KCSP, 2015).

Limitations

The study used the FOCUS-PDSA model to evaluate small cycles of change over time, which yielded significant results for the entire clinic (IHI, 2019). However, the cycles were for small changes, so no large comparisons were done among all providers in the clinic or with other facilities within the network that switched to EPIC during this time. This was a limitation since it would be useful to see if the central KY clinic was unique or similar compared to all ambulatory settings within the enterprise.

The demographic information revealed that almost half of the quality metric data on tobacco screening and counseling were documented by specialty providers. This was a noted limitation with the provider performance rates since other providers can impact the primary care provider's performance if they do not perform tobacco cessation counseling for a documented smoker. Another issue was the inability to include smart phrases in the current performance rates used in this study, due to a coding flaw which prevented capture of the data. This lack of capture was resolved after the study was completed, so it would be interesting to evaluate in the impact smart phrases have on documentation rates in future studies.

Conclusion

The EHR change led to increased screening of tobacco users which resulted in enhanced awareness of those needing counseling. Increased screening documentation could lead to increased low dose CT scans to detect lung cancer (ALA, 2020). Tobacco cessation counseling and preventative measures are crucial for Kentuckians since the state has the highest national lung cancer rate in the United States (ALA, 2020). Thus, when tobacco cessation counseling

documentation improves, the quit rates should also improve with the enhanced continuity in care, and improved health outcomes. This is evident with the change to a new EHR during this DNP project, which had a significant impact on tobacco screening and cessation counseling documentation rates among primary care providers in a central KY clinic.

The change to an advanced EHR revealed similar findings as the literature review that providers often document tobacco cessation counseling in relation to three concepts. The three concepts are knowledge on documentation, technology changes, and incentives. Ultimately, as documentation rates continue to improve, this will lead to decreased tobacco consumption in KY and improved population health overall (CDC, 2021; ALA, 2020).

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Table 7. *Chart Audit Timeline*

Task(s)			
Start Date	End Date	Description	Duration (days)
10/1/2020	10/31/2020	Audit 1: Baseline	31
11/1/2020	11/1/2020	Educational Intervention	1
11/2/2020	11/2/2020	AEHR Changes	1
2/1/2021	2/28/2021	Audit 2: 3 months post-intervention	28
5/1/2021	5/31/2021	Audit 3: Baseline pre-EPIC	31
6/4/2021	6/4/2021	Educational Intervention	1
6/5/2021	6/5/2021	EPIC Initiation	1
9/1/2021	9/30/2021	Audit 4: 3 months post-intervention	30

Table 8. *Data Analysis*

Measure/Variable <i>Example</i>	Defined <i>Example</i>	Level of Data	Source of Data	Collection Method	Frequency of Data Collection	Planned Analysis
Demographic Data	Race, gender, ethnicity, age, PCP, & insurance type from Tobacco users and non-tobacco users screened for tobacco use.	Nominal (race, gender, ethnicity, PCP, and insurance type) and ordinal (age)	1. EMR data from IT 2. Chart Review	1. Sent from IT 2. Manual chart audit	Baseline, Oct 2020, Feb 2021, May 2021, Sep 2021	Frequency distribution
Tobacco screening	# of Pts who received screening for tobacco	Nominal OR Categorical (Y/N)	1. EMR data from IT 2. Chart Review	1. Sent from IT 2. Manual chart audit	Baseline, Oct 2020, Feb 2021, May 2021, Sep 2021	Frequency distribution
Tobacco Counseling	# of Pts who received counseling for tobacco	Nominal OR Categorical (Y/N)	1. EMR data from IT 2. Chart Review	1. Sent from IT 2. Manual chart audit	Baseline, Oct 2020, Feb 2021, May 2021, Sep 2021	Frequency distribution
Quality Metric Rate	# of Pts who aged 18 years and older who were screened for tobacco use one or more times within 24 months AND/OR who received tobacco cessation intervention if identified as a tobacco user.	Continuous	1. Quality Metric Data on Tobacco screening (NQF0028)	1. Sent from IT	Baseline, Oct 2020, Feb 2021, May 2021, Sep 2021	Repeated Measures ANOVA

Figure 3. *Tobacco Cessation Counseling Central Kentucky Clinic Rate*

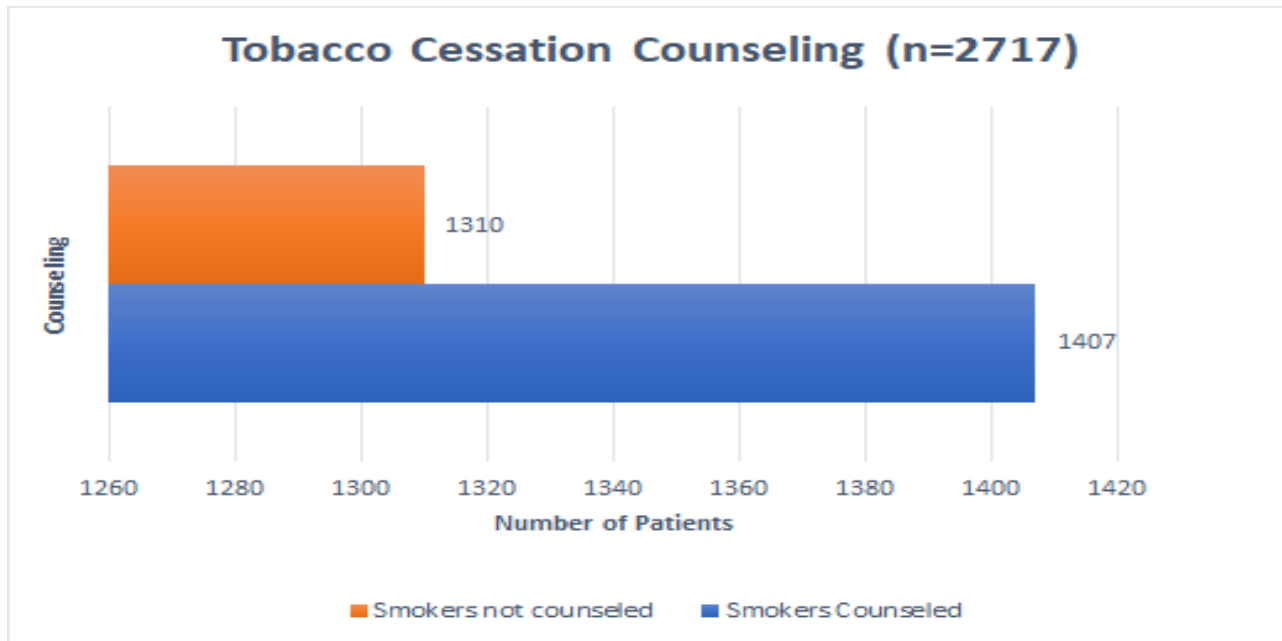


Figure 4. *Expected Clinical Flow for Tobacco Cessation Counseling Documentation*

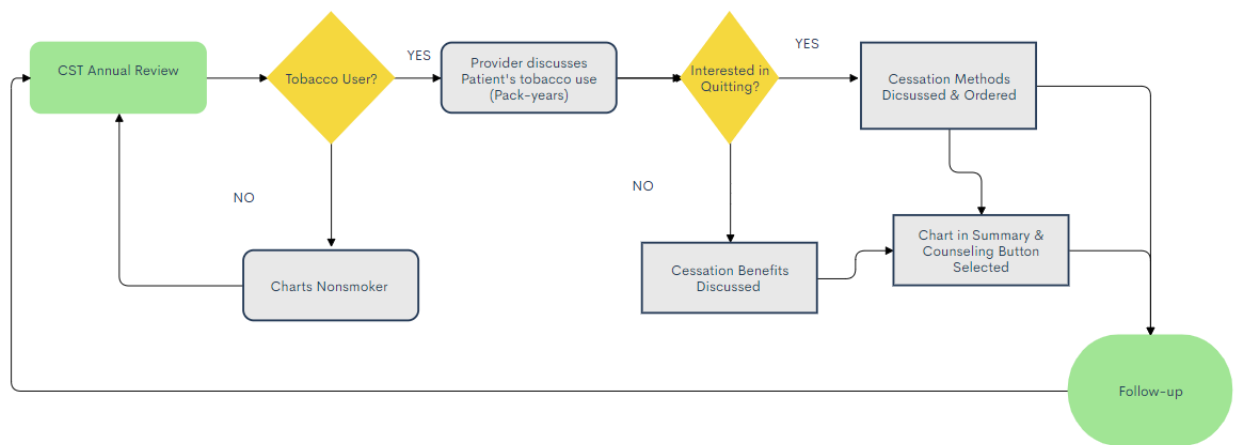


Figure 5. Actual Clinical Flow for Tobacco Cessation Counseling Documentation

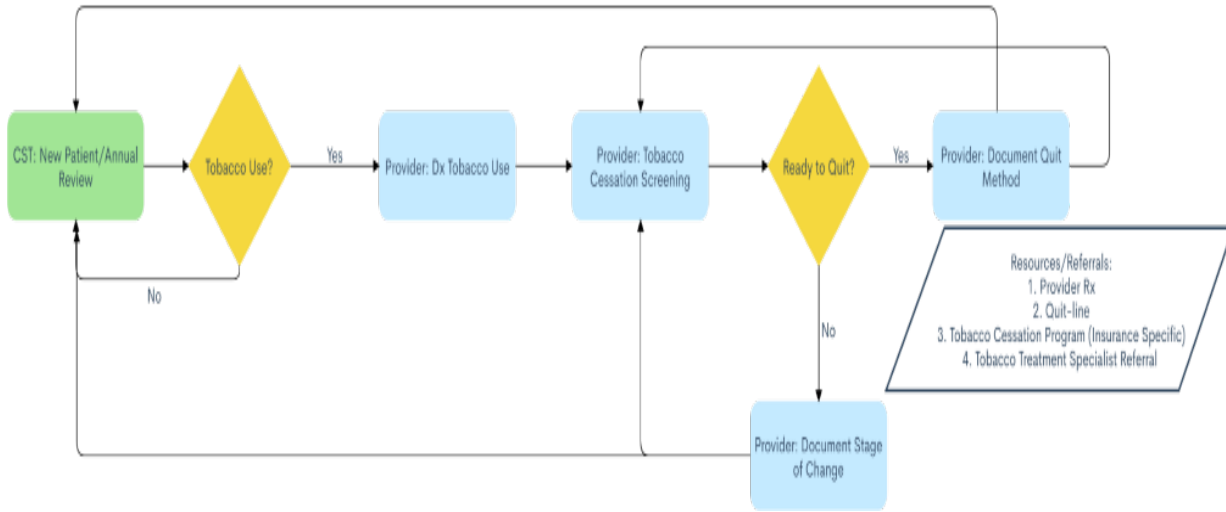


Figure 6. Fishbone Diagram



**Tobacco Cessation Sensation
Increasing Smoking Cessation Counseling**

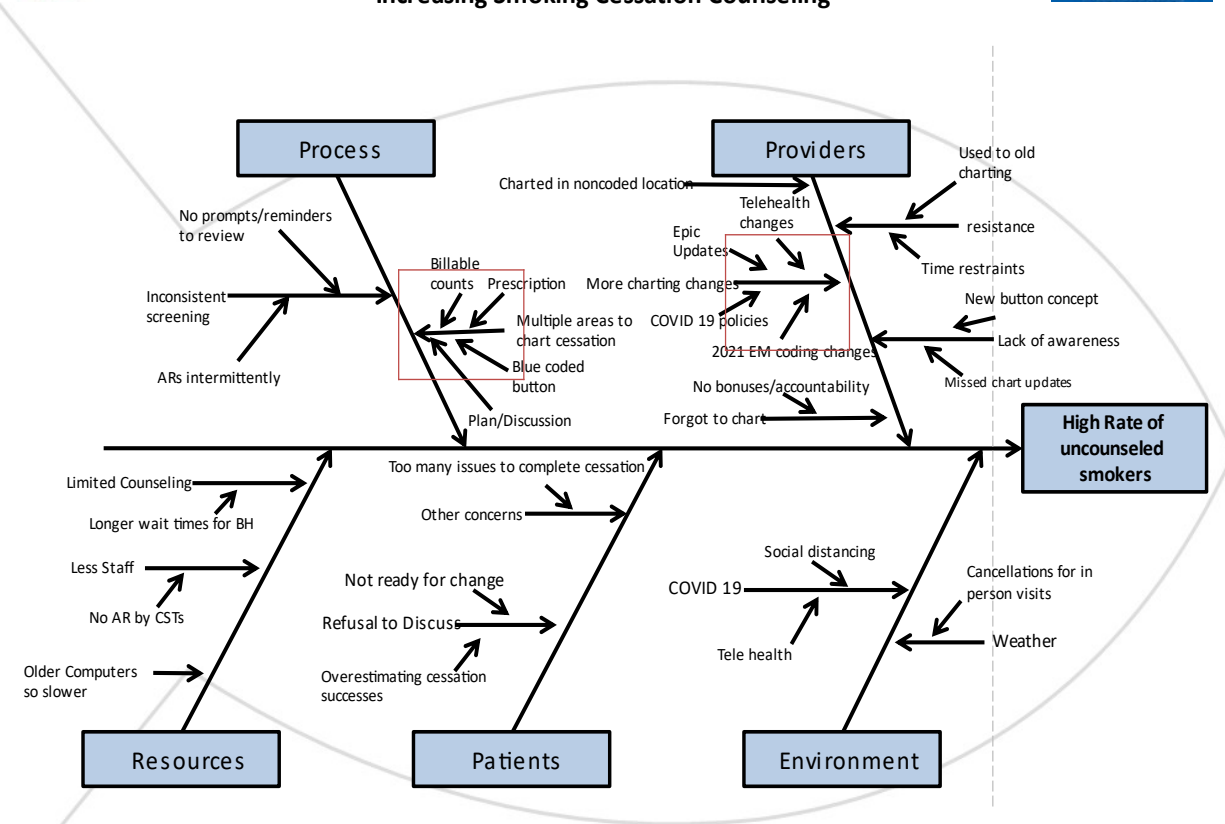


Figure 7. Prioritization Matrix

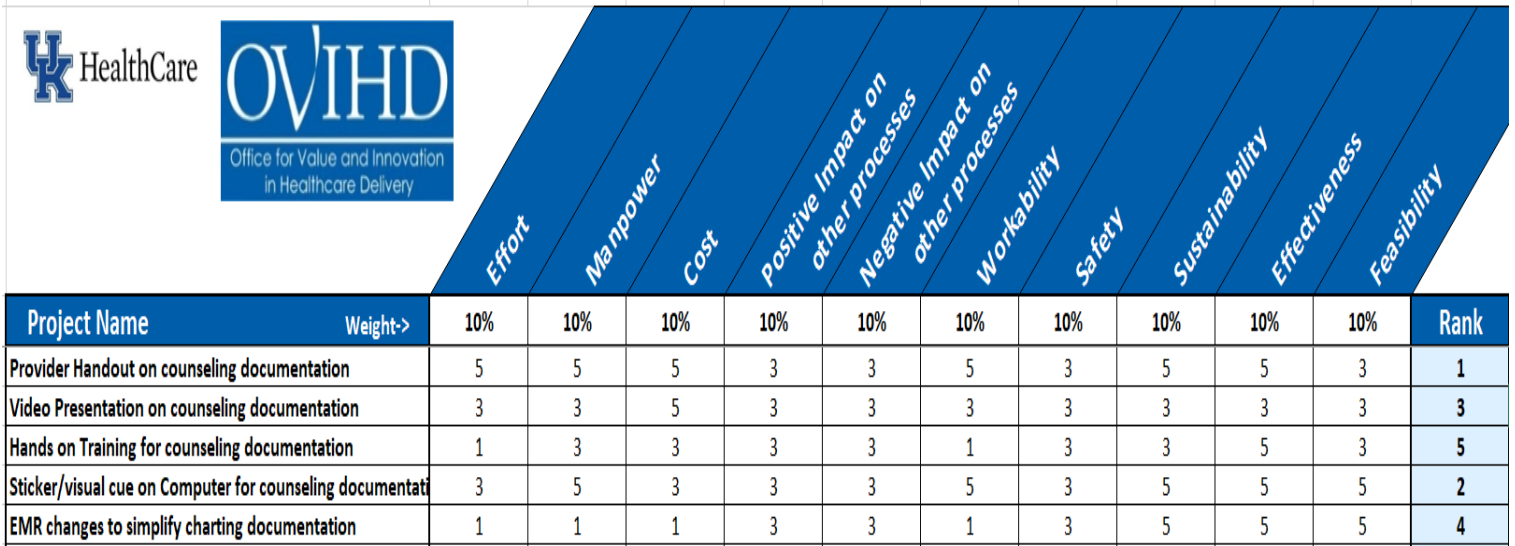
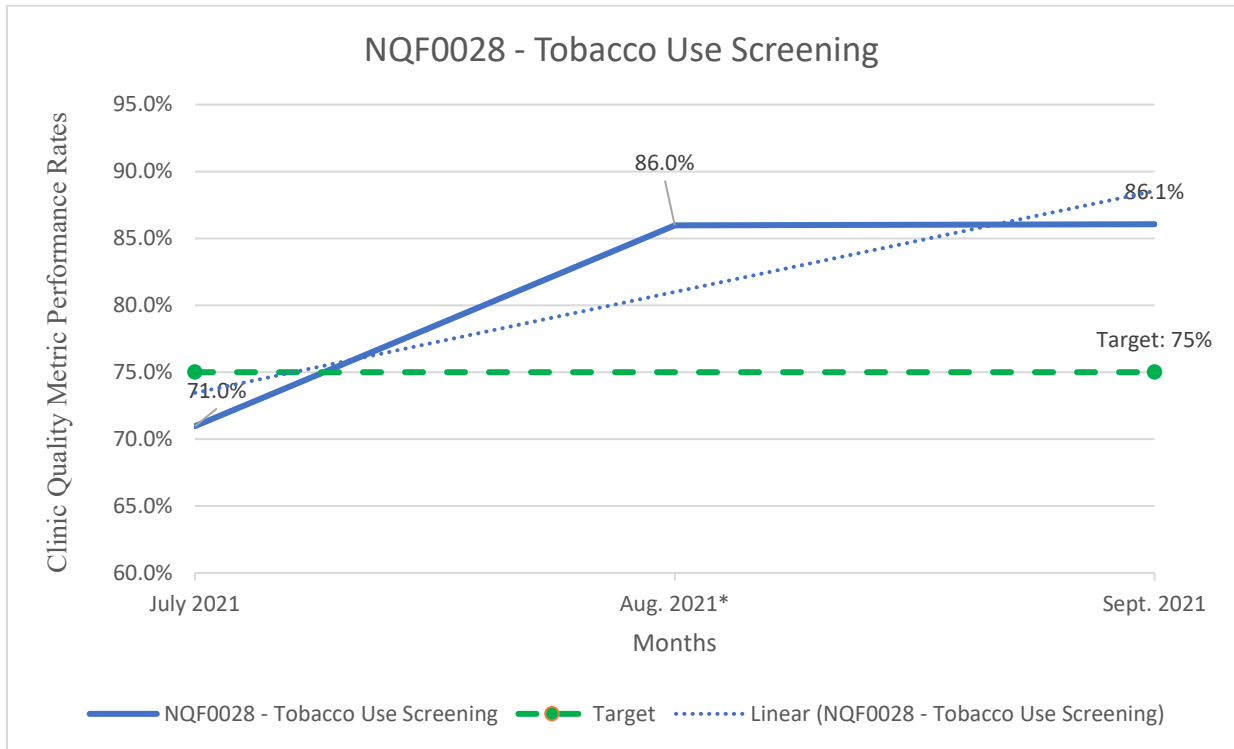


Figure 8. Performance Rates in EPIC for Clinic



Appendix A: Documentation Handout


Documentation Tips for Tobacco Use Screening and Cessation Intervention (Quality Measure NQF 0028)

Documentation needs to support:

What was discussed

Possible components

- Patient tobacco use
- Impact of smoking and advise to quit
- Willingness and attempt to quit
- Methods used for cessation
- Medication management of cessation
- Resources provided
- Setting quit date
- Follow-up arranged



Time spent

CPT codes

- 99406: 3-10 minutes
- 99407: greater than 10 minutes


Where to document:

1

SOCIAL HISTORY

On clinical desktop or in note

- Never smoker (Z72.0)
- History of tobacco use (Z87.891)
- Current everyday smoker (F17.200)




2

RECCOMENDED ORDERS

Tobacco Cessation Counseling

Check bubble for time spent counseling



3

COUNSELING

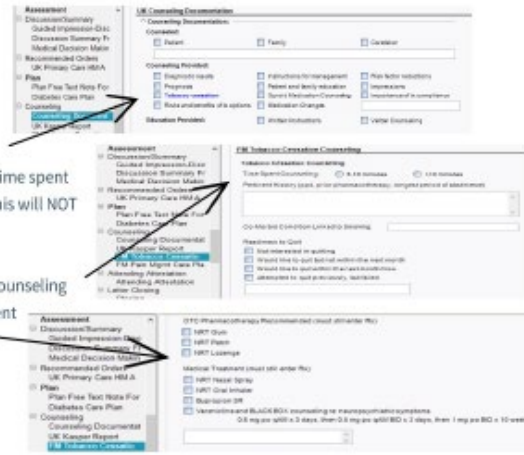
Counseling Documentation

Check "Tobacco cessation" if time spent counseling was < 3 minutes (this will NOT generate a bill!)

FM Tobacco Cessation

Check bubble for time spent counseling

Check OTC or Medical Treatment



Appendix B: Provider Survey



The handout clarifies smoking cessation documentation.

Strongly disagree Strongly agree

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Anything you think needs to be added or changed?

It is clear that ordering a medication, checking the \$ counseling button, and/or checking the blue counseling button are the only three approved ways to chart tobacco cessation counseling.

Strongly disagree Strongly agree

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----



Appendix C: RedCap Data Sheet

Page 1

Demographics

What is the patient study ID (deidentified with letters and numbers)?

Age (years)

Ethnicity

Hispanic or Latino NOT Hispanic or Latino Unknown / Not Reported

Race

- American Indian/Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Black or African American
- White
- More Than One Race
- Unknown / Not Reported

Gender

- Female
- Male

PCP

Insurance Type (Medicare, Medicaid, HMO, etc; no numbers used)

Monthly Data Collection

Who is the provider the patient is seeing today?

Was tobacco cessation counseling documented with the nonbillable counseling button?

- yes
- no

Was tobacco cessation counseling documented with a 3-10 minute billable button?

- yes
- no

Was tobacco cessation counseling documented with a >10 minute billable button?

- yes
- no

Was tobacco cessation counseling documented in the History of Presenting Illness (HPI)?

- yes
- no

Was tobacco cessation counseling documented in the plan?

- yes
- no

Performance Data

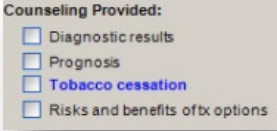

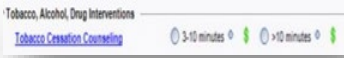
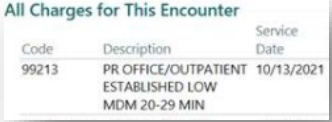
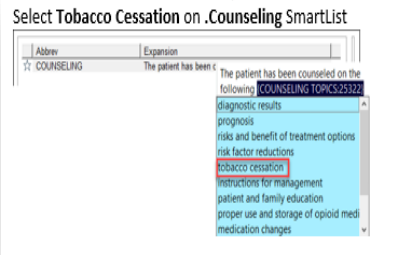

What is the provider ID for the study (deidentified with letters and numbers)?

Audit Stage

Performance rate for tobacco cessation counseling documentation?

Clinic performance rate at this time?

Appendix D: Allscripts versus EPIC Documentation

Allscripts		Epic	
APPROVED Documentation Evaluated	Visual	APPROVED Documentation Evaluated	Visual
Tobacco Cessation Medication Ordered	Chantix, wellbutrin, NCT patch etc. in MAR	Tobacco Cessation Medication Ordered	Chantix, wellbutrin, NCT patch etc.in MAR
Nonbillable counseling button		Nonbillable counseling button	
Billable Counseling button		CPT codes for counseling (99406, 99407)	
		Smart phrases in discussion (.TobaccoCounseling or .Counseling)	
		Storyboard icon	
Unapproved Documentation Evaluated	Visual	Unapproved Documentation Evaluated	Visual
Unapproved free text within the note	HPI or plan	Unapproved free text within the note	HPI or plan